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1		BEFORE THE	
2		RIDA PUBLIC SERVICE COMMISSION	
3	In the Matter of		
4	AN ELECTRICAL POWER		J262-E1
5	MARTIN COUNTY BY FL LIGHT COMPANY	ORIDA POWER &	
6		NE NEED FOR DOCKET NO. 02	0263-EI
7	AN ELECTRICAL POWER		
8	LIGHT.	/	
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13		PAGES 228 THROUGH 398	
14	PROCEEDINGS:	HEARING	
15	BEFORE :	CHAIRMAN LILA A. JABER COMMISSIONER J. TERRY DEASON	
16		COMMISSIONER BRAULIO L. BAEZ COMMISSIONER MICHAEL A. PALE	CKI
17		COMMISSIONER RUDOLPH "RUDY"	BRADLEY
18	DATE:	Wednesday, October 2, 2002	
19	TIME:	Commenced at 9:40 a.m. Concluded at 7:05 p.m.	
20		·	
21	PLACE:	Betty Easley Conference Cente Room 148	er
22		4075 Esplanade Way Tallahassee, Florida	
23	REPORTED BY:	JANE FAUROT, RPR	
24		Official Commission Reporter	
25	APPEARANCES:	(As heretofore noted.)	
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1	PROCEEDINGS
2	(Transcript continues in sequence from
3	Volume 2.)
4	RENE SILVA
5	continues his testimony under oath from Volume 2.
6	CONTINUED CROSS EXAMINATION
7	BY MR. MCWHIRTER:
8	Q All right. Now, this 55/45 debt/equity ratio that
9	the company maintains, the genesis of that is because that is
10	what you told the Public Service Commission that you would like
11	to maintain or how did that come about?
12	A You have gone beyond my ability to answer the
13	question, Mr. McWhirter.
14	Q Do you know anything about ratemaking and the impact
15	debt and equity have on the revenue requirements of a utility?
16	A Not except for a very rudimentary knowledge of it.
17	Q Do you understand that with respect to the return
18	that you are allowed on debt, the return is based upon the cost
19	you pay for that debt which will, say, be 7 percent and that is
20	tax deductible to you, do you understand that?
21	A Yes.
22	Q And then you understand that with respect to equity
23	on the theory that equity is more risky than debt capital and
24	you have to lure investors with a higher return, the Commission
25	allows you a higher return on equity, and that that return is

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232 1 allowed after taxes are deducted so there is a 60 percent 2 markup. And if you are allowed a 12 percent return on equity 3 it turns into about a 19 percent return that is required on the 4 equity component of your investment as opposed to whatever the 5 debt. the debt cost is. Do you understand that differential? 6 No. Mr. McWhirter. You have gone past my level of Α understanding. 7 8 But you were testifying about the debt/equity penalty 0 and I was wondering it would seem to me that it would be more 9 10 beneficial to consumers, since I represent consumers, that you adjust that ratio down to maybe put a little more debt in there 11 12 for our benefit. Has the company ever considered that? I think that is a question that you may want to post 13 Α 14 to Mr. Dewhurst. With respect to the debt/equity ratio of your holding 15 Q 16 company, FPL Group, do you know what that debt/equity ratio is? 17 Α No. MR. McWHIRTER: That's all the questions I have for 18 this witness. 19 CHAIRMAN JABER: Thank you, Mr. McWhirter. 20 21 Mr. Twomey. 22 MR. TWOMEY: Thank you, Madam Chairman. 23 CROSS EXAMINATION BY MR. TWOMEY: 24 25 Good afternoon, Mr. Silva. Q FLORIDA PUBLIC SERVICE COMMISSION

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1	A Good afternoon.
2	Q I want to ask you initially and briefly hopefully
3	about the 15-megawatt shortfall and the 20 percent reserve
4	margin which I don't think has been beat to death sufficiently
5	yet.
6	MR. McWHIRTER: I've heard some moaning, though.
7	MR. TWOMEY: We are not there yet.
8	BY MR. TWOMEY:
9	Q Mr. Silva, tell me, isn't it correct that the
10	calculation of your reserve margin is based upon a comparison
11	of two numbers, namely your generating capacity at a given time
12	versus your projected demand at the same time?
13	A No, I don't think so. Again, I would suggest that
14	you ask any detailed questions on that point, that you direct
15	them to Doctor Sim. But my understanding is that it goes
16	beyond our installed capacity. In other words, that it
17	includes purchases, firm purchases for capacity that we have,
18	and it takes into consideration load management measures that
19	we have in place.
20	Q Yes, sir, I'm sorry. Did you take my question to
21	mean that I was speaking about when I said generating capacity
22	that I meant your native capacity?
23	A Yes, I did.
24	Q Okay. If I clarified my question to mean all of your
25	capacity available to you, whether it is third party contracts

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234 1 or your native capacity, isn't it true that is how you 2 calculate your reserve margin at a point in time by comparing 3 the two numbers? 4 I think that in addition to that demand-side Α 5 management comes in play, as well. 6 0 Okay. Now, is that because that reduces your demand? 7 Α Our firm demand. 8 0 Right. Now, if you know, isn't the capacity that you 9 use based upon the net measured rating of the units that you 10 have available to you? 11 Α I can't answer that question. 12 My question, if you know, is whatever the ratings 0 13 are, whether it is the net measured rating or the nameplate 14 ratings of the units, isn't it true, Mr. Silva, that the 15 numbers that you have at a point in time are based upon numbers 16 that are factual because they represent how much capacity those 17 units are supposed to generate at their maximum? Do you follow 18 my question? 19 Are you saying whether those numbers are fixed? Α 20 Yes, sir. Aren't they fixed? Don't you just find 0 21 all the units you have available to you whether they are native 22 generation and the contracts you have and you total them up? 23 Α My understanding is that in the megawatt capability 24 of individual units you take into consideration changes over time, both things that you add or degradations or actions that 25

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1	you take to overcome the degradation. So they change over
2	time.
3	Q Yes, sir. But if they do change over time and you
4	take that into consideration, at a given point, or given time
5	in a year, say June, for example, June 1st, 2005, which is a
6	critical date here apparently, your company will have taken in
7	those changes and you will have totaled up the number of
8	megawatts available to you and that will be your generating
9	capacity available at that time, correct?
10	A As I understand it, yes.
11	Q Now, in contrast to that, isn't it correct that the
12	number you compare, that is your demand figure, is a
13	projection?
14	A Yes.
15	Q Okay. Now, if you know, has your company
16	historically checked the value and validity of its projections
17	by comparing earlier projections to whatever demand data
18	occurred factually as it developed?
19	A I don't know if we have, but if we have, then that
20	would probably can be answered by Doctor Green.
21	Q Okay. But you would agree, would you not, that a
22	prudent company would check the competency of its unit making
23	projections by seeing how accurate they turned out, would you
24	agree?
25	A I am confident that we have been checking that, yes.
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1	Q Okay. Do you know, then, how accurate historically
2	those projections have been?
3	A No, I do not.
4	Q Mr. Green would know that perhaps?
5	A Yes, Doctor Green should be able to answer that.
6	Q Okay. Now, for June 1st, 2005, tell me if I did this
7	right, Mr. Silva. I looked at, I think, on Page 13. I think
8	Mr. McWhirter and others mentioned this. You have projected
9	through Doctor Green's testimony your summer peak load for the
10	year 2005, and I think that as of the date June 1st is 20,719
11	megawatts. That is at Line 13, Page 13. Do you see that?
12	A Yes.
13	Q Okay. Now, it has also been testified to you and
14	there have been questions asked of you on this earlier that at
15	that point with just the addition of the Manatee unit there
16	will be a shortfall of 15 megawatts, right?
17	MR. GUYTON: Objection, asked and answered.
18	CHAIRMAN JABER: Mr. Twomey.
19	MR. TWOMEY: I didn't ask him that. I need to
20	establish that he said that for purposes of what I'm going to
21	ask him next.
22	CHAIRMAN JABER: I think it has been asked and
23	answered, and I think you can refer to that answer in asking
24	your question.
25	MR. TWOMEY: Okay.

237 CHAIRMAN JABER: The point is the foundation has 1 2 already been laid. 3 MR. TWOMEY: Okay. BY MR. TWOMEY: 4 5 If you take the 15 percent -- do you have a 0 6 calculator? 7 Α Yes. I would ask you to compare the previously testified 8 0 to 15-megawatt shortfall as of June 1st, 2005, to your 9 projected summer peak load of 20,719? 10 You mean subtract 15 from 20.719? 11 Α Right. No, I mean compare the 15 to that number? 12 Q Like what percent it represents? 13 Α 14 0 Yes. sir. By my calculation it is 0.7. 15 Α Okay. And does that mean that it is less than 1/10th 16 0 of 1 percent? 17 18 Α Yes. Okay. Now, so it is a very, very small percentage, 19 0 20 correct? 21 Α Yes. Now, Mr. McWhirter asked you about what purchased 22 0 power you had, and I would ask you to turn to your Exhibit 23 RS-2. Okay. At the beginning the period of -- the numbers 24 shown there are the figures being purchased for the total year? 25 FLORIDA PUBLIC SERVICE COMMISSION

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1	Or, I mean, the first six months and then the second six
2	months, winter/summer?
3	A I'm not sure where the line of demarcation is, I
4	believe the summer is June.
5	Q Okay. So then if we look at the line 2005, that is
6	the first column that shows the year, then the summer column
7	for that year would be starting in June of that year, is that
8	what you are saying?
9	A Well, it would be in effect in June of that year. I
10	don't know at what point each of these changes.
11	Q Okay. Well, if we look at the sources of purchased
12	power shown on your document, the UPS column is related to your
13	purchases from the Southern Company, correct?
14	A Yes.
15	Q And the next column SJRPP is St. Johns River Power
16	Park, correct?
17	A That is correct.
18	Q And that only drops 7 megawatts, which might perhaps
19	be related to the rating. But in the next category, other firm
20	purchased capacities, you go from isn't it correct that you
21	go from 1,303 megawatts in the winter of 2005 down to 447
22	megawatts in the summer?
23	A Yes. From 1,306 to 447, yes.
24	Q Now, I thought it was the tenor of Mr. McGlothlin's
25	questions, or some of them to you that he was asking you
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couldn't you make up 15 megawatts at that point, and did you
 take it that way, his questions?

A I don't remember whether he was asking me that 4 particular question, but are you asking me that question?

Q Yes, sir. I will ask you -- I will skip that question. Let me ask you this directly, is it your testimony or do you know whether there isn't 15 megawatts to be found amongst the expiring contracts that you have there, the 1,303 megawatts in the winter of 2005 going down to the 447?

A No, we don't contend that there is not 15 in these or in other places, including out of the request for proposal itself. What we have contended is that as we look at the alternatives in the RFP, the combination of bringing in Martin in 2005 is more beneficial to the customer than not bringing it in by a substantial amount based on the comparisons that we have done and that is what our testimony is.

Q But let me ask you this, if it turned out that -- if it turned out that for some reason, including Martin was not the most cost-effective, I take it your testimony is that you could look for 15 megawatts if you needed to in the summer of the year 2005?

A That is definitely true that we could look for it, but I don't see any reason why we would, if by delaying Martin to 2006 we would forgo a savings to our customers of about \$75 million, which is just the benefit of having Martin in those

240 extra 12 months on a net basis. And, I don't know that there 1 2 would be another alternative that we could enter into that 3 would give the customer that benefit. COMMISSIONER DEASON: Let me interrupt at this point. 4 5 The 75 million, what does that represent, is that fuel savings? 6 THE WITNESS: It is a combination. Commissioner. 7 COMMISSIONER DEASON: Can you identify that 8 combination for me. please? 9 THE WITNESS: Yes. The biggest component is the system fuel cost. Since this would be a very efficient unit, 10 11 our projection is that the system cost in fuel would be \$55 12 million lower during that period. In addition, if we build 13 only a unit in the west coast, there is a higher transmission 14 integration cost that Mr. Stillwagon can explain far better 15 than I can, which would add \$24 million to the cost of 16 transmission integration required in our system. 17 COMMISSIONER DEASON: So if you build a unit both on 18 the ease and the west you are saving transmission costs you otherwise would have to incur? 19 20 THE WITNESS: That is correct. because it maintains a 21 certain balance and doesn't force the flows to exceed the 22 criteria that would require additional upgrading of the system. 23 Another component that adds to the savings in reverse, if you 24 will, is that if we lose the synergy of building both plants 25 closely together with manpower and so forth, the cost of

building Manatee is expected to be about \$16 million higher than what we have for Manatee in conjunction with Martin. And then, of course, we recognize that by deferring the unit one year, there is a reduction in capital costs and in O&M associated with not having that unit there.

However, although that would be a deferral for one 6 7 full year, we think that since we have the revenue sharing agreement in place where FPL could not even seek recovery of 8 9 these costs between June of '05 and the end of '05, it is really only the five months after the beginning of '06 that 10 would be relevant to savings associated with that deferral, 11 which would be only approximately 20 million savings. So 55 12 13 million for fuel, 24 million for transmission integration costs, 16 million that Manatee is less expensive to build if we 14 do it in conjunction with Martin. Added up less 20 million of 15 the benefit of deferring the unit in terms of capital costs and 16 O&M costs would add up to about \$74.9 million. 17

COMMISSIONER PALECKI: What was the fuel cost you used to determine the 55 million and what were you comparing it to?

THE WITNESS: In the analysis that we performed, we simply left out the Martin plant from the FPL system and the same fuel price forecast that is being used in all of these analysis for the FPL system and to calculate, for example, the fuel cost-recovery in earlier years, of course, that was the

same forecast, for all the fuels, for oil, gas, nuclear, coal,
 et cetera.

3 COMMISSIONER PALECKI: I think one of the concerns 4 that I have expressed several times here at the Commission is 5 that everyone is building natural gas combined cycle plants and 6 in all 50 states we are going to have these plants coming on 7 line in the years 2005, 2006, and going out into 2010 and very. very few investments in any coal or nuclear technology. Have 8 you considered what the effect of a large gas spike would be on 9 10 that calculation? If you had a spike that is similar to what we saw about a year and a half ago would that have a 11 12 significant effect on that \$55 million in savings and could 13 that actually turn it into a loss?

14 THE WITNESS: First of all, I share your concern and I think it is something that we consider on an on-going basis. 15 16 My understanding is that we have not done a comparison using a 17 spiked fuel price. However, my understanding would be that the 18 reason there is a \$55 million fuel savings here is because of 19 the differential in the efficiency of this Martin unit and the 20 average of what is generated and purchased by FPL which relates 21 in great part with steam generation and peaking generation and 22 so forth. So absent Martin, more generation would have to come from those less efficient units. So if it were merely the 23 24 price of the fuel that goes up or comes down, the differential 25 would probably be maintained in the same way because the unit

1 would still be more efficient.

2	And, of course, I recognize that that might not be	
3	exactly the case if only gas spiked and oil and everything else	
4	remained very low. And I can't answer that question in that	
5	respect because we haven't done the calculation. But if oil	
6	and gas went up as they did back a few years ago, then I would	
7	say that this differential in fuel cost would probably be	
8	maintained. It might even go up because the difference in heat	
9	rate and efficiency would be maintained, but the difference in	
10	each megawatt, dollar per MMBtu would go up.	
11	COMMISSIONER PALECKI: I understand. Thank you.	
12	BY MR. TWOMEY:	
13	Q Mr. Silva, when you were responding initially to	
14	Commissioner Deason, you were looking at a document. Is that	
15	where you were reading off the savings?	
16	A Yes.	
17	Q Is that same document in your testimony as an	
18	exhibit?	
19	A No.	
20	Q Where else is it found or may we have a copy of it?	
21	MR. GUYTON: Madam Chairman, I would be happy to	
22	provide copies of it. I had planned to use it as a redirect	
23	exhibit and I would be happy to hand it out now.	
24	MS. BROWN: I'm sorry, could I ask Mr. Twomey to	
25	repeat what he said. I was going to ask Mr. Sim if this was	

based on the -- Mr. Silva if this was based on the document we 1 2 asked Mr. Sim to prepare as a result after his deposition? 3 CHAIRMAN JABER: Well, I think since there is a lot 4 of interest in this subject, we will let Mr. Guyton go ahead 5 and pass out his exhibit. Thank you for offering, Mr. Guyton. 6 And, Mr. Twomey, I am assuming this is the same 7 exhibit you are asking for? 8 MR. TWOMEY: Well, I don't know. I suspect you are 9 right. I just noticed the answers that he -- I believe I 10 noticed the answers he was giving Commissioner Deason, I wasn't 11 aware that were in his testimony, and I saw him looking at a 12 document that was a separate sheet of paper. And I was just 13 curious where they were found. 14 CHAIRMAN JABER: Okay. Great. 15 MR. TWOMEY: I will wait until Mr. Guyton finishes 16 passing it out. 17 CHAIRMAN JABER: Thank you. 18 BY MR. TWOMEY: 19 You are familiar with this document, since you were Q 20 reading from it a few minutes ago? 21 Α Yes, sir. 22 MR. GUYTON: Madam Chairman, I apparently have passed out two different versions of this document, and I think it is 23 24 important to identify which one Mr. Silva is referring to. I 25 apologize. FLORIDA PUBLIC SERVICE COMMISSION

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CHAIRMAN JABER: I think it is important that we just 1 2 take a few minutes and get it right. And you all need to sit down by a microphone so the court reporter can capture what 3 4 you're saying. Mr. Twomey, hang on to your questions. Mr. 5 Guyton, the document I'm holding says incremental cost to customers if determination of need is not granted for the 6 7 conversion of Martin Unit 8 compared to FPL plan. Is that the 8 document I am supposed to have? 9 MR. GUYTON: Madam Chairman, there are two documents 10 with that same title, and as I recall there are different 11 entries on the bottom of the page. And I don't know which one 12 Mr. Silva was referring to. 13 CHAIRMAN JABER: Well. we can ask Mr. Silva. What is 14 the document you were using, Mr. Silva, in responding to 15 Commissioners Deason and Palecki's questions?

16 THE WITNESS: The document I was referring to 17 contains a line in the lower than the middle of the page that 18 reads subsequent years, and that is the one that I am using. 19 The other one that Mr. Guyton may have also handed out does not 20 have that line and the next two or three lines.

CHAIRMAN JABER: Mr. Guyton, the document that the witness is referring to is not the document I have, so do you have a copy of what the witness is using? And if you need approach your witness and compare, that's fine.

25

MR. GUYTON: Yes, Commissioner, I do. I apologize

1 for the confusion.

8

MR. TWOMEY: I've got some other questions if they
want to take all these up and make sure that everybody gets
what he has. It's your pleasure, Madam Chairman.

5 CHAIRMAN JABER: Thank you for the offer, Mr. Twomey. 6 That may be more efficient. But then again he would want to be 7 sitting down to listen to the rest of your questions.

MR. TWOMEY: Okay, certainly.

9 CHAIRMAN JABER: Mr. Silva, obviously I could tell 10 that there was a difference between the two documents because I 11 had the first document, but for purposes of clearing the 12 record, tell me what the difference was between the document 13 you were looking at and the document that counsel passed out 14 the first time.

15 THE WITNESS: The document that counsel passed out 16 the first time did not have the lines that read subsequent 17 years and under that asterisk higher system fuel costs offset 18 by avoided capital and O&M costs, and then subsequent to that 19 the word or. Those were not included in the document that Mr. 20 Guyton handed out initially and they are included in my copy. 21 CHAIRMAN JABER: Thank you, Mr. Silva.

Mr. Twomey, you had some questions on this document?
 MR. TWOMEY: Yes, ma'am. And some more after that,
 but not many.

25 BY MR. TWOMEY:

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Q Mr. Silva, if I understand this document, at least in
part it explains numerically, does it not, some of the text on
your Page 52, is that correct?
A Are you referring to increased system fuel costs?
Q Yes, sir.
A Not exactly. Let me explain. My testimony spoke on
Page 52, Line 5 and 6 referred to increased system costs of
fuel costs that would result from delayed in service date of
both I was I was referring to both combined cycle units,
Manatee and Martin. At that time when I was presenting my
testimony, we were not considering this situation of what if
Martin is deferred because we had from the choices, from all
the choices that we had evaluated, we had the combination of
the FPL plan in '05 as being the lowest cost. It was when we
were asked the question, well, what are the economics of
deferring Martin that we looked in some detail at it and said,
well, it doesn't meet the 20 percent reserve margin, so we
couldn't have included it in the official RFP evaluation, but
let's take it look at it now. And this page that I have been
referring to summarizes the results of that analysis.
Q Okay, sir. If I may ask
MR. GUYTON: Excuse me, if I might ask that this
document be identified so that we have a reference for the
record.
CHAIRMAN JABER: Hearing Exhibit 9. And, Mr. Guyton,
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1	why don't you go ahead and give me a short title for Hearing
2	Exhibit 9, something that distinguishes it from the document I
3	assume you will pass out at redirect.
4	MR. GUYTON: Incremental cost to customers without
5	Martin Unit 8.
6	CHAIRMAN JABER: Thank you. Incremental cost to
7	customers without Martin Unit 8 is identified as Hearing
8	Exhibit 9.
9	MR. TWOMEY: Thank you, Madam Chairman.
10	(Exhibit 9 marked for identification.)
11	BY MR. TWOMEY:
12	Q Mr. Silva, was this document prepared under your
13	supervision and direction?
14	A Yes.
15	Q And by that I mean to ask you, did you calculate
16	these numbers yourself personally or get them from subordinates
17	or others in the company?
18	A No, sir, all of them were calculated by somebody
19	else.
20	Q Okay. And if you know, at what point were they
21	calculated, what time, what date?
22	A Let's take it from the bottom. The 16 million was
23	calculated sometime at the end of June. Not for this purpose,
24	but it is included in the bid evaluation that has been
25	presented in testimony as the added cost of building only
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Manatee unit. It is in the exhibits. The higher system fuel 1 2 cost was calculated, I believe, by Doctor Sim in response to a 3 late-filed exhibit requested by staff which was, I believe, on 4 August 30th. I don't know exactly when it was calculated, but 5 it was shortly after that. The \$24 million transmission 6 integration cost was calculated by Mr. Stillwagon and it was 7 also included in the response to staff's late-filed exhibit. 8 The 20.1 million has been calculated. I would say, within the 9 last two weeks. I don't know the exact date. perhaps within 10 the last ten days. And that is one item that is different from 11 what we used in response to the staff's late-filed exhibit when 12 we applied the whole year worth of capital and O&M cost savings, if you will, from the deferral. And that was as far 13 14 as I know the last number that was calculated. And I might add in the case of staff, we did not include the 16 million in that 15 16 calculation and that was an omission on our part. At that time 17 we failed to identify that.

18 CHAIRMAN JABER: Mr. Silva, let me try to understand 19 what you just said. Did staff ask you, has staff asked you for 20 this type calculation through discovery, is that when the 21 question came up?

22

THE WITNESS: Yes, Madam Chairman.

CHAIRMAN JABER: And in response to staff's discovery you did not include the \$16 million amount as the added cost of building the Manatee unit?

1 THE WITNESS: We did not quantify that amount. I 2 believe that we referred to it, if I remember correctly, as 3 there being a loss of construction synergy, but we did not 4 include a number. That is my recollection, I may be wrong in 5 that regard.

6 MS. BROWN: Madam Chairman, may I interrupt for a 7 minute? We have an exhibit ready for Mr. Sim to provide to the 8 Commission. We have gotten kind of backwards. We have much to 9 discuss about this and we are going to provide this for the 10 Commission, which is the basis for this summary. I don't know 11 if you want us to pass it out now to help you or wait for Mr. 12 Sim.

13 CHAIRMAN JABER: No, I think you need to wait for the 14 next witness. My question has nothing to do with the exhibit 15 itself, I am interested in trying to understand why in response 16 to staff's discovery you did not include the 16 million as a 17 calculation. I'm trying to understand what happened there.

18 THE WITNESS: It was our error. our shortcoming in not including it. For every combination that included one FPL 19 20 unit, we had identified a cost due to a loss of synergy in the 21 construction. If we built Manatee only, it would be 16 22 million. If we built only it would be 15 million. And that is reflected in all of the numbers that we have calculated. 23 When 24 we were responding to staff's request as to what happens if you 25 defer the unit, we failed to recognize that deferring the unit

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1	meant that that same 16 million would come into play. And so
2	it was only, actually, when we were looking at the numbers
3	again that we said, well, there is a quantification that we
4	already have included, that is 16 million. The number could be
5	higher loss of synergy, but 16 million is what we have
6	estimated and that is why we included it here.
7	CHAIRMAN JABER: Thank you.
8	BY MR. TWOMEY:
9	Q Mr. Silva, when was this document itself compiled and
10	produced?
11	A I put this document together on Monday of this week.
12	Q I want to go back and ask you to turn to Page 49 of
13	your testimony. At the top, Line 1, you state that FPL has a
14	history that demonstrates its willingness to purchase power if
15	that is the most economic alternative to customers, is that
16	correct?
17	A Yes.
18	Q And then go back to your Exhibit RS-2 if you would
19	for a moment.
20	A Yes.
21	Q It has been the position I have heard in any event of
22	Florida Power and Light in a related, if you will, proceeding
23	in relation to the Commission's bid rule docket that FPL feels
24	that it is important to self-generate to a certain degree to
25	preserve its ability to meet its statutory obligation to serve.

1 Are you familiar with that theory?

2

I have not heard that statement.

3

4

Q You haven't heard that?

Α

A No.

Q So, would it be your testimony, then, that there is no predisposition of Florida Power and Light to minimize its purchased power contracts as is reflected at the bottom half of your Exhibit RS-2?

9 Oh, absolutely not. In fact, my single admonition Α 10 from Mr. Evanson when he hired me for this role was what we are 11 going to do is get the best price for our customer that we can 12 reliably wherever it comes from. And I don't link that that is inconsistent with these numbers, because all that we say here 13 14 is these contracts are going to be expiring and it doesn't mean 15 that we are not necessarily going to replace them. We are 16 going to replace them with other contracts. We will replace 17 them with other contracts to the extent that they are economic.

Q Okay. And still on RS-2, if you would, in the last column that is on the right, the total, if we are in the year 20 2002 currently, and you have 1,367 megawatts of winter power 21 currently, right, purchased power total?

- 22
- A You are saying in 2002?
- 23

Q Yes, sir, the winter column.

A In RS-2 I see a number of 1,910. Is that what you are looking at?

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1	COMMISSIONER DEASON: Mr. Twomey, I think those
2	numbers have been corrected.
3	MR. TWOMEY: I'm sorry, I didn't do the errata.
4	BY MR. TWOMEY:
5	Q That is the corrected number?
6	A 1,910 for the winter.
7	Q And what is your figure for 2005 winter?
8	A 2,623.
9	Q Okay. And my question, Mr. Silva, is have you either
10	personally or to your have you personally, are you
11	personally concerned with any degradation in your ability to
12	serve your customers by that increase in the total of purchased
13	power from the year 2002 to 2005?
14	A No, sir.
15	Q Thank you. Now, if you will turn to RS-3 for a
16	minute, please. These are the breakdown, if I understand it
17	correctly, of the contracts you have that appear in the other
18	firm capacity purchases on RS-2, is that correct, or do I have
19	it right?
20	A These would be the cogeneration, small power
21	production.
22	Q And those are included in the other firm capacity
23	purchases on RS-2, is that correct?
24	A I do not believe so. I believe that they are
25	additive.
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1	Q Well, let me ask you just the same, the Bioenergy
2	project that is the first line on RS-3?
3	A Yes.
4	Q It's from Broward County based on landfill gas, that
5	shows the megawatt capacity of 10 megawatts, correct?
6	A Yes.
7	Q It has been in service for roughly four years,
8	correct?
9	A Yes.
10	Q And the ending date is January 1st of the year 2005?
11	A Yes.
12	Q Is there any possibility that you are aware of, if
13	you are aware, that that contract could be extended?
14	A I don't know any I don't have any information
15	regarding that particular contract.
16	Q But would I be correct in assuming that if you could
17	extend it for a year, that contract alone would make up 10
18	megawatts of the 15 megawatt shortage?
19	A Well, excuse me, I may not understand your question,
20	but if it expires in 1/1/05 and we replace it in 1/1/05, are
21	you saying that our calculation is based on the assumption
22	that we are losing it. So, I'm sorry, I didn't understand your
23	question.
24	Q And maybe I'm wrong. Tell me if I'm right or wrong
25	on this. I assume that your calculation in terms of the

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1 capacity that you will have available to you have factored in 2 the loss, the loss of this contract. When you look at June 3 1st, 2005, this won't be there, isn't that correct? 4 That is correct. And that has been factored into our Α 5 need determination. our need calculation. 6 0 Yes, sir t, hat is what I thought. And I appreciate 7 you explaining that. So my question to you is if you could 8 extend this contract for a year, isn't it correct that that 9 would obviously give you ten more megawatts of power for the 10 next year? 11 Α That is correct. 12 0 And that would be two-thirds of the 15-megawatt 13 shortfall? 14 Α That is correct. What I don't know is what the 15 economics of it would be. 16 0 Right. But just in terms of meeting the capacity 17 necessary to reach the 20 percent reserve margin versus the 18 19.92 percent, this would help you get there, right? 19 A Yes. 20 Now, go down to the -- if you would, please, the last 0 21 line which is Florida Crushed Stone in Hernando County. Those 22 contracts expire in October, right? 23 Α That is correct. Are you aware whether or not those would be available 24 0 25 for renewal at some term?

A To my knowledge, there has been only preliminary
 discussions about what happens at that time. Nothing that I
 can plan on at this stage.

Q The fuel savings, if I heard your testimony correctly that you project to achieve by bringing in Manatee at the same time as Martin are based upon the improved heat rates of both units, is that correct?

8 A The very good heat rate of the units and the fact
9 that they then improve the overall heat rate of the system
10 because of their lower heat rate.

11 Q Yes, sir. My question is is that vintage of unit, 12 the combined cycle unit that you are going to build, is it 13 tested yet in action? Are those heat rates that you can rely 14 on, are they proven?

A Yes, sir. In the first place our units at the Fort Myers plant I am informed are achieving those heat rates. And, second, in the bids that we received from the RFP, the heat rates that we included for our units are in the ballpark with everybody else's. Some are slightly higher, some are slightly lower or better than ours, but they are in the same range. MR. TWOMEY: Thanks. That's all I have.

22

CHAIRMAN JABER: Thank you, Mr. Twomey.

Mr. Silva, I have just a few questions for you. Mr.
Silva, I would like to go ahead and go first before staff,
because they are real nice to me sometimes and can correct my

1 questions if I mess them up too much.

2 On the equity penalty, I really do want to understand 3 what the purpose of that is. And I want to spare you from 4 these questions, though, if you really believe another witness 5 is the most appropriate witness to answer them.

6 THE WITNESS: I really think that that would be the 7 case, especially Doctor Avera and Mr. Dewhurst.

8 CHAIRMAN JABER: Thank you. Something else you said I just didn't understand. With respect to PG&E, you said in 9 10 response to Mr. Moyle's questions that bidder was not taken out of the process because of a concern related to their financial 11 12 viability. You distinguished it by saying that bidder did not 13 go forward because of other concerns, and I need to understand 14 how you determined which bidder should go forward on the short 15 list if you weren't making findings about financial viability 16 up or down. I need to understand that thought process in 17 applying the criteria.

18 THE WITNESS: Do you have a copy of my testimony?19 CHAIRMAN JABER: Yes.

20THE WITNESS: If you could look at my Exhibit RS-6.21CHAIRMAN JABER: Yes.

THE WITNESS: Let me explain a little bit about those groupings. As I said there were 30 some combinations that the models picked as being the most competitive, closer to FPL's plan than \$200 million, and many of them had the same bidders,

1 they were repeated because some bid five years, some bid -- the 2 same bidder bid ten years or a different location, but they 3 were mutually exclusive.

4 So for the purpose of evaluation, I grouped them as 5 they appear on this document into A, they always contained the 6 same bidders, B, C, D, and E. The context in which we made the decision on PG&E is here on Line C where PG&E is Bidder Y, and 7 this combination, the best combination that PG&E was in 8 consisted of FPL's Martin Unit and PG&E 506 megawatts in 2005, 9 10 and then El Paso who had two different locations. And the 11 groupings included either El Paso at Belle Glade or El Paso at Manatee for 708 megawatts. And what we looked at was the 12 13 number on the right-hand side.

And remember that these numbers were an interim number. There were subsequent adjustments made to them, but we initially considered for the short list the first two groups, which were A and B, which were within 58 and 59 million respectively of the FPL plan. And I explained already why we didn't choose Group B because of TECO and Bidder X and the reliability risk that they posed in our estimation.

And then we looked at the other three to see whether we wanted to have more on the short list and we thought since the gap between the 58 with Florida Power Corp and El Paso and the one with PG&E was almost 30 million additional dollars, that it was going to be hard enough getting El Paso and Corp to

reduce their price sufficiently to be economic, let alone to
 have PG&E reduce their price to offset \$87 million. So we kind
 of drew the line at that point and said let's focus on Group A
 that consists of Florida Power Corp and El Paso.

5 CHAIRMAN JABER: And that process, that application 6 of your judgment in that fashion, that is not specifically 7 articulated in the RFP, so that -- that is not specifically 8 articulated in the RFP.

9 THE WITNESS: Not in that level of detail as to how 10 we would pick the short list. I think we simply said that we 11 would pick bidders for a short list with whom we would 12 negotiate and this is the process that we followed at the time. 13 In a discussion with FPL management and a lot of interaction, 14 and I might add this is one of the sessions in which Commission 15 staff came and witnessed the proceedings.

16 CHAIRMAN JABER: Now, to the degree companies were 17 willing to reduce their prices substantially, they don't know 18 they have that opportunity unless you contact them and bring 19 them into the short list process, correct?

THE WITNESS: Well, that is correct, Madam Chairman, but my view was first we did ask for the best bid, and in this particular instance that we are talking about, El Paso is in both of them, and as it turned out El Paso could not lower their price. And absent lowering their price in the speculation that we are following if we had included PG&E they

would have had to reduce their price by the full \$87 million,
 which would have been extremely unlikely. And, you know, in
 retrospect I can't second guess our decision. We thought that
 we proceeded appropriately.

5 CHAIRMAN JABER: And I'm not suggesting you 6 second-guess your decision. I guess I'm trying to figure out 7 where that level of certainty comes from that they wouldn't 8 reduce their price by 87 million. You don't know for a fact 9 that they would not have reduced their price 87 million, do 10 you?

11 THE WITNESS: No, I do not know that for a fact. 12 CHAIRMAN JABER: With respect to -- you just stated 13 in your response to me that there was -- one of the companies 14 was eliminated because of what you thought would be a 15 reliability risk. Walk me through that criteria and that 16 judgment.

17 THE WITNESS: Again, starting out from the top 18 contending groupings, and in this case it would be shown here 19 under Group B which included Martin, Bidder W, who is TECO, 20 Bidder X, and then El Paso at one location or the other. And 21 as I indicated earlier, we had two concerns with that 22 particular grouping. One of them was the issue of TECO not 23 having enough capacity to both meet their 20 percent reserve 24 margin and deliver to us 200 megawatts of capacity as they 25 proposed, and that causing based on our analysis the reserve

1 margin to dip below 15 percent. And the second is Bidder X,
2 their bond rating had been degraded significantly and
3 repeatedly since sometime in late 2001 through the spring and
4 summer of 2002.

5 And we reviewed at some length. which I think Mr. 6 Dewhurst can discuss better than I can the implications of the 7 declarations that they were making in their financial 8 statements, the 10K report, et cetera. And they were clearly 9 indicating that they were in trouble and that they did not know 10 whether they could even obtain financing at acceptable terms to 11 go forward with their projects. And so when we took both of 12 those areas of concern together we said it would be impractical 13 to pursue that particular combination, and that is what led us 14 to that decision.

15 CHAIRMAN JABER: Now, all of that, everything I have 16 just discussed with you --

17

THE WITNESS: Yes.

18 CHAIRMAN JABER: -- what part of that evaluation and 19 that judgment, that decision did Sedway contribute to?

THE WITNESS: Mr. Sedway -- I'm sorry, Sedway Consulting, Mr. Taylor did not participate in any of this discussion. Mr. Taylor performed an analysis in parallel to this so that as you see the numbers that I have here, cost difference versus All-FPL, he calculated a separate set of numbers as to what the difference would be. And my

understanding is that at that point in time his difference 1 2 where he shows 58 -- I believe it was 61 million and then for each of the other numbers he had a different differential, but 3 I don't have that in front of me. But we received that 4 information from Mr. Taylor and we looked at it in the 5 6 preparation of the meeting that took place on June 18th, and we 7 portrayed it to our management as these are the findings from 8 Mr. Taylor and Sedway Consulting that confirmed these results. 9 They are not exactly the same, but they convey the same 10 message.

11 CHAIRMAN JABER: Just a couple more questions for 12 you. Throughout your entire testimony in response to cross 13 examination questions you talked about the least cost plans. 14 the least cost proposals. At what point in your evaluation 15 process do you go from looking at the most cost-effective 16 alternative as a whole to the least cost plan is the first 17 question, and just to have you think about the second one, as 18 well, what in your mind is the difference?

19 THE WITNESS: I would think that the most 20 cost-effective takes into consideration things that are not 21 specifically tied to price. In other words, if you can 22 quantify concerns that you have with reliability, their ability 23 to meet their time commitments, performance guarantees, et 24 cetera, that that would come into cost-effective. Because they 25 could -- anybody, ourselves, they, somebody could say I am

going to build something very cheaply and then it is not
 reliable.

3 So I think that in terms of least cost. the economic 4 analysis performed by FPL to which Doctor Sim will testify and 5 by Sedway to which Mr. Taylor will testify address the least cost alternative in terms of cumulative present value revenue 6 7 requirement. To the extent that that was supplemented to 8 arrive at most cost-effective, that was kind of a combined 9 effort by several in FPL management in finance, some experts 10 outside the company and myself who looked at the bids and the 11 bidders and said, okay, do these add any value that we haven't taken into consideration. And if so, will it change our 12 13 decision.

14 And the conclusion to that was no, and in some cases it was that we, in fact, had some advantages. It wasn't a huge 15 16 advantage, but there were some advantages in some areas. And some of them had advantages in other areas, but on the whole at 17 18 that point having looked at the financial standing, having looked at what was being offered to sell to us and what we 19 20 could do knowing our level of performance, we concluded that it was the most effective alternative to go with the FPL plan. 21 22 I'm sorry about being so long-winded on that.

CHAIRMAN JABER: That's quite all right. So as it relates to Florida Power Corp and the El Paso conversations, were those bids eliminated in your honest assessment because

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1	they did not come in with the least price or was it because in
2	your opinion they weren't the most cost-effective alternative?
3	THE WITNESS: They were eliminated because they were
4	not the most cost-effective alternative. One of the components
5	was they were not the least priced and, two, they did not make
6	up for it in other ways, even though we did look at it.
7	CHAIRMAN JABER: Thank you, Mr. Silva.
8	Commissioners, it's your pleasure. Would you like to
9	ask questions now or do you want staff to go?
10	Staff.
11	MS. BROWN: We have no questions, Madam Chairman.
12	CHAIRMAN JABER: Commissioners.
13	COMMISSIONER DEASON: I have a question concerning
14	the consideration of firm fuel contracts. As I understand your
15	testimony, and maybe you can confirm this if my understanding
16	is correct, there were no bidders who were eliminated because
17	they did not have a firm fuel contract, is that correct?
18	THE WITNESS: That is correct, Commissioner.
19	COMMISSIONER DEASON: And there were no bidders who
20	were adversely affected in your evaluation because they did not
21	have a firm fuel contract?
22	THE WITNESS: No, although to clarify on one point,
23	we evaluated everybody in terms of fuel based on face value.
24	What they said, if they said our transportation for gas is
25	going to come through this pipeline, we took that at their
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word. And there was one instance which I alluded to in my
 summary where El Paso in the initial negotiations said, oh, we
 actually meant for you to do a total agreement instead of us,
 El Paso, providing the gas.

5 And that was the first instance we had of that. and 6 so we inquired about that. And we had to make an adjustment for that not because it would cost more for the gas itself, but 7 8 now because the way of delivering gas to the unit was different 9 than the way that they had indicated, a different pipeline, if 10 you will. And it was their numbers that we used. Again, their 11 adjusted numbers that we used. But other than that adjustment 12 which was based on their revised information we did not second 13 guess anybody who said this is how the gas is going to come and 14 this is essentially the cost of that gas.

15 COMMISSIONER DEASON: I want you to look at what has 16 been identified as Exhibit Number 9. This is the calculation 17 of the \$74.9 million in incremental cost if the Martin Unit 8 18 is not built. Do you have that?

19

THE WITNESS: Yes, I do.

20 COMMISSIONER DEASON: I'm just trying to understand 21 what these numbers represent. The first number, the 55 22 million, that is higher system fuel costs. That is system fuel 23 costs for one year, correct, and that is June 2005 to June 2006 24 period, correct?

25

THE WITNESS: That is correct.

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1	COMMISSIONER DEASON: And that is what your overall
2	total system fuel costs would be effected by that amount?
3	THE WITNESS: That is right.
4	COMMISSIONER DEASON: Now, the next line, higher
5	transmission integration costs, I think you explained that
6	earlier to a question that I had. That 24 million, is that one
7	time capital cost?
8	THE WITNESS: That is correct, including AFUDC.
9	COMMISSIONER DEASON: Including AFUDC. So that is
10	not one year's revenue requirements associated with that, this
11	is up front capital costs, correct?
12	THE WITNESS: This would be present value revenue
13	requirement.
14	COMMISSIONER DEASON: Oh, that is present value
15	revenue requirement?
16	THE WITNESS: Yes.
17	COMMISSIONER DEASON: For one year?
18	THE WITNESS: Yes. It occurs in the first year, so I
19	don't think there is much net present value. I understand it
20	is to 2001, because all the numbers were done to 2001, but it
21	would be presumably a one time investment and this is the
22	present value.
23	COMMISSIONER DEASON: So that is the total present
24	value revenue requirements associated with the higher
25	transmission cost?
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1	THE WITNESS: That is right.
2	COMMISSIONER DEASON: So all of these numbers enter
3	on a comparable basis, they are in terms of present value of
4	revenue requirements?
5	THE WITNESS: Yes.
6	CHAIRMAN JABER: Commissioner Deason, let me make
7	sure I understand that response. Only for a five-month period,
8	though?
9	THE WITNESS: I think we were talking about a
10	different line, if I understand correctly.
11	COMMISSIONER DEASON: I'm talking about the 24
12	million of transmission integration costs.
13	CHAIRMAN JABER: Thank you.
14	THE WITNESS: And the answer to your question is also
15	correct, the 20.1 million is for five years.
16	COMMISSIONER DEASON: The last item, the 16 million
17	associated with the added cost of building Manatee Unit 3, this
18	is the lost synergies of having dual construction projects, I
19	take it?
20	THE WITNESS: That is correct, Commissioner.
21	COMMISSIONER DEASON: The 16 million, is that in
22	terms of present value of revenue requirements?
23	THE WITNESS: Yes.
24	COMMISSIONER DEASON: Okay.
25	CHAIRMAN JABER: Commissioners, any other questions?
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Redirect.

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MR. GUYTON: I have a few questions. Before I start,
I'm going to ask Mr. Hill to hand out two exhibits that I'm
going to ask Mr. Silva to address on redirect.

5 MR. MOYLE: Can I make an objection, I believe. And 6 I probably should have done it sooner, but this has not been 7 admitted into evidence. I mean. I think we talked earlier 8 about the no surprise rule, and this document that a lot of 9 testimony has been elicited from. I think Mr. Silva said was 10 prepared on Monday. So, not only this document, but if we are getting a whole host of other documents that we haven't seen 11 12 before. I would object.

13 CHAIRMAN JABER: Mr. Guyton, your response.
14 MR. GUYTON: I haven't moved to admit it yet, but I
15 think it has been -- we can defer. If you would like to go
16 ahead and hear it now I will go ahead and address the objection
17 now, Madam Chairman.

18 CHAIRMAN JABER: Mr. Moyle, you are absolutely right you should have done it sooner. That is the first observation. 19 20 The second observation is we have identified it, we have not 21 talked about admitting it into the record. And then the final 22 observation is you know in the prehearing order it clearly 23 states that exhibits can be identified for purposes of 24 cross-examination. Certainly as a courtesy they should be 25 identified if they are known ahead of time, but as I recall the

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1 discussion of that initial exhibit was brought up because of 2 Commissioner questions. So we will leave it at that, but certainly we can revisit it when it comes to admitting the 3 4 exhibit into the record. 5 MR. MOYLE: Okay. Given that ruling I guess I will look at what has been handed out here and if it is something I 6 7 haven't seen before. 8 CHAIRMAN JABER: Thank you, Mr. Moyle. 9 Mr. Guyton, what are these? 10 MR. GUYTON: There are two documents. one is a 11 document that -- a two-page document that is entitled important 12 notice to bidders, which is a document that Mr. Silva referred 13 to during cross examination. The second document is a 14 calculation of TECO reserve margin that Mr. Silva also referred to during cross examination. 15 16 MR. MOYLE: And I guess my question would be with 17 respect to the TECO document, when was this prepared? 18 CHAIRMAN JABER: Mr. Guyton, I understand that your witness referred to these during cross-examination, but you 19 20 better have some real redirect guestions that would require 21 this witness to look at these exhibits. Because I absolutely 22 agree with Mr. Moyle to preserve the integrity of the process 23 there should not be any surprise. 24 I am going to allow the questions related to these 25 exhibits, Mr. Moyle.

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1	Go ahead, Mr. Guyton.
2	REDIRECT EXAMINATION
3	BY MR. GUYTON:
4	Q Mr. Silva, during cross-examination by Mr. Moyle you
5	had occasion to answer a series of questions about whether or
6	not the supplemental RFP indicated that financial viability
7	would be the primary nonprice criteria. Do you recall those
8	questions?
9	A Yes, I do.
10	Q And in response to that answer you indicated to Mr.
11	Moyle that the company had sent a letter to all bidders
12	regarding financial viability?
13	A That is correct. That was part of my response to
14	show that financial viability was considered important by the
15	company and that it had been effectively communicated to all
16	the bidders. And this notification was sent out, I believe, on
17	June 1st, 2002, very shortly after we received the bids and had
18	a first indication of the credit rating, if you will, of some
19	of the bidders.
20	MR. GUYTON: Madam Chairman, we would ask that the
21	important notice to bidders be identified as the next exhibit.
22	CHAIRMAN JABER: Hearing Exhibit 10 will be important
23	notice to bidders.
24	(Exhibit 10 marked for identification.)
25	BY MR. GUYTON:

271 Mr. Silva, would you explain what Exhibit 10 is, the 1 0 2 document that has been identified as Exhibit 10? 3 Is that the other document that I received? Α 4 0 No, sir. I'm sorry, the important notice to bidders? 5 Α The notice to bidders was a notification that we sent 6 to all the bidders on June 1st, 2002, to explain to them that FPL considered the financial viability of a bidder very 7 8 important, and that the financial guarantees offered by bidders would be critical issues. And we wanted to do this because 9 10 upon initial review of the bids we noticed that a number of 11 them were showing credit ratings that were lower than 12 investment grade, and that gave us a grave concern. So we 13 wanted to express as strongly as we could that this was a very 14 important consideration for us and they needed as appropriate 15 to shore up their bid in that regard. 16 CHAIRMAN JABER: Mr. Silva. this is a document that 17 went to the bidders after your RFP was issued and after the 18 bids were submitted? 19 THE WITNESS: Yes. 20 CHAIRMAN JABER: And that makes it outside the RFP 21 process. then? 22 THE WITNESS: Yes, it was outside the initial RFP and 23 it was based on what we saw coming back. 24 BY MR. GUYTON: 25 Mr. Silva, you were asked by Mr. Moyle if experience 0 FLORIDA PUBLIC SERVICE COMMISSION

in the labor market was a criteria that was considered in the 1 2 nonprice evaluation, and whether that specifically had been 3 identified in the supplemental RFP. Was experience of the 4 bidders or the track record of the bidders a criteria. a 5 nonprice criteria that was set forth in the supplemental RFP? 6 MR. MOYLE: I'm going to object in that it is leading. 7 8 CHAIRMAN JABER: Mr. Guyton. 9 MR. GUYTON: I am merely trying to put the question 10 in context. 11 CHAIRMAN JABER: Rephrase the question, Mr. Guyton. 12 BY MR. GUYTON: 13 What were the nonprice criteria that were mentioned 0 14 in the supplemental RFP? 15 In the supplemental RFP we discussed the financial Α 16 viability and experience of the bidder. That is on Page 17, 17 Section F. The pollution control equipment strategy which I have alluded to, the cooling method, dispatchability of the 18 19 generating units, deliverability of the firm capacity and 20 energy, the amount of capacity offered, heat rates, and the cost of firm capacity and energy plus the timing and structure 21 22 of those costs. Those were listed under we are seeking 23 information about a number of attributes of each proposal 24 including but not limited to the following, and also on Page 18 25 under other considerations we said the proposals which were

1 deemed the best economic choices for FPL's system will be 2 evaluated for various risk factors and other considerations in 3 order to determine which proposals would be the best overall 4 choices. Factors which may be considered include but are not 5 necessarily limited to the following, and the first one is 6 experience and track record of the bidder. 7 MR. GUYTON: The other document that I have asked be handed out, Madam Chairman, could we get the TECO forecast 8 9 capacity document marked? 10 CHAIRMAN JABER: Hearing Exhibit 11 is TECO forecast 11 of capacity demand and scheduled maintenance. 12 (Exhibit 11 marked for identification.) 13 MR. MOYLE: Just so the record is clear, I believe I have objected to this, correct? I have objected to this 14 15 document being used. 16 CHAIRMAN JABER: I took your objection to be for both 17 documents and that was the objection I overruled. 18 MR. MOYLE: Okay. Thank you. 19 BY MR. GUYTON: 20 Mr. Silva, would you identify the document that has 0 21 been -- if you can, that has been identified as Exhibit 11? 22 Yes. As part of our evaluation for the reliability Α 23 of service that we would contract for, we conducted an 24 evaluation of what TECO's reserve margin would be without 25 selling to FPL, and if they sold the proposed 200 megawatts to

FPL between 2005 and 2011. And so we calculated the reserve margin and concluded that as shown in the tenth column in the lower section that the reserve margin would be 18.2 in 2005, dropping to 14.4 in 2006, and thereafter remaining well below 20 percent.

6 CHAIRMAN JABER: Okay. Now, Mr. Silva, on this
7 point, did you calculate reserve margin for every bidder that
8 was a regulated utility in the State of Florida?

9 THE WITNESS: Not in this level of detail. The only 10 other regulated utility in the State of Florida was Florida 11 Power Corporation that only offered 50 megawatts, and it was 12 easy to see that 50 megawatts would not have a similar impact 13 on their reserve margin.

14 CHAIRMAN JABER: In calculating what the reserve 15 margin was going to be for 2005 and again for 2006, did you 16 take into account what contracts TECO might extend or what new 17 generation TECO was planning on obtaining to meet its own 18 requirements?

19 THE WITNESS: Only those that were listed in the 20 ten-year site plan, the most recent ten-year site plan, Madam 21 Chairman.

CHAIRMAN JABER: All right. And my final question on this point is this determination of TECO's reserve margin, what part of most cost-effective alternative, the standard that we have to apply in looking at your need case, what part of that

1 standard does the calculation of TECO's reserve margin go to? 2 THE WITNESS: We have a provision the likelihood of 3 being able to deliver the proposed capacity to FPL's system. 4 I'm sorry, in my testimony I referred to delivery. Let me find 5 the reference. I believe that it would be appropriate to 6 consider under contractual commitment of a supplier. Our 7 contention was that if they are caught between a situation 8 where they have to maintain 20 percent reserve margin to meet 9 their load and they are required to do that by the Commission 10 and by their obligation to serve, they will not be in a 11 position to commit to us contractually in a real sense a firm 12 capacity in the same amount. So from that perspective we 13 thought that that was a key consideration. 14 CHAIRMAN JABER: I understand. Do you think TECO 15 when they were submitting the proposal in response to your RFP 16 knew that you would be calculating their reserve margin for the 17 year 2005 and the year 2006? 18 THE WITNESS: I don't know that they would. 19 CHAIRMAN JABER: Mr. Guyton, I interrupted you again, I'm sorry. 20 21 BY MR. GUYTON: 22 Mr. Silva, you were asked a series of questions about 0 23 a 15 megawatt shortfall as it has been called, and I will 24 shorten this, I'm not going to ask why build Martin in 2005 25 rather than '06. I think you have answered that. One of the

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1	answers that you gave was that you didn't think it was
2	appropriate to reduce the reserve margin for FPL from 20
3	percent down to 19.92. Would you explain that answer to the
4	Commission?
5	A Reducing the reserve margin from 20 to 19.9, is that
6	what you said?
7	Q For FPL.
8	A For FPL. The reserve margin, as I indicated earlier,
9	it was stipulated by FPL and approved by the Commission and it
10	constituted the rule under which we conducted the RFP and the
11	evaluation. And among other things it would be unfair to all
12	the participants to now consider in retrospect a different
13	reserve margin.
14	Q And what reserve margin did you use to evaluate both
15	the FPL self-build and the RFP proposals?
16	A We considered a 20.0 reserve margin.
17	MR. GUYTON: Madam Chairman, that's all I have.
18	Thank you.
19	CHAIRMAN JABER: Thank you, Mr. Guyton.
20	MR. GUYTON: We would move Exhibits 2 and 9 and 10
21	and 11.
22	CHAIRMAN JABER: 2, 9, 10, and 11.
23	MR. MOYLE: And I will
24	CHAIRMAN JABER: Hang on one second, Mr. Moyle.
25	Exhibit 2, Mr. Guyton, that is RS-1 through RS-8. Exhibit 2
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1	shall be admitted into the record. But I have that Exhibits 3,
2	4, and 5 are yours, as well. Exhibit 3, is that Exhibit 1
3	through 16?
4	MR. GUYTON: Madam Chairman, there are a number of
5	our witnesses that will be supporting that jointly, and I think
6	it would be premature to move it at this time.
7	CHAIRMAN JABER: Okay. And the same would be true
8	for Exhibit 4?
9	MR. GUYTON: Yes, Madam Chairman.
10	CHAIRMAN JABER: And am I assuming you do not want
11	Exhibit 5 into the record, that chart?
12	MR. GUYTON: I'm sorry, I should have moved Exhibit
13	5, as well.
14	CHAIRMAN JABER: Okay. Seeing no objection to
15	MR. MOYLE: I would object.
16	CHAIRMAN JABER: For Exhibit 5, the summary?
17	MR. MOYLE: Yes, ma'am.
18	CHAIRMAN JABER: What is the basis of the objection,
19	Mr. Moyle?
20	MR. MOYLE: I'm not sure the document has ever been
21	produced prior to today. I think the prehearing order was
22	clear with respect to evidence that the parties intend to rely
23	on that they be provided in advance.
24	CHAIRMAN JABER: Your response, Mr. Guyton.
25	MR. GUYTON: All the numbers that are shown on this
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278 chart are -- I mean, this gentleman is an overview witness and 1 2 all the numbers that are shown on this chart are either taken directly out of his testimony and exhibits or the other 3 4 witnesses that he summarized. Madam Chairman. MR. MOYLE: And if it is simply demonstrative, then 5 6 it has been used for that, but I think it is inappropriate if 7 it is already in the record somewhere else to admit it. 8 CHAIRMAN JABER: Mr. Moyle. I will sustain the 9 objection and not allow this exhibit. But for point of 10 clarification, Mr. Moyle, parties and staff do reserve the 11 right, including yourself, to identify additional exhibits for 12 purposes of cross-examination, and that extends to redirect. But I absolutely agree with you, with respect to this exhibit 13 14 it was identified as I recall, Mr. Guyton, during the summary of the testimony and it has already been used. So, that 15 16 addresses Exhibit 5. Exhibits 9, 10, and 11, Mr. Guyton, I 17 have are yours, as well. 18 MR. GUYTON: Yes. Madam Chairman. 19 CHAIRMAN JABER: Exhibit 9 is the incremental cost 20 without the Martin Unit 8. 21 MR. McGLOTHLIN: I have an objection to that, as well. 22 CHAIRMAN JABER: Mr. McGlothlin, what is your 23 objection on Exhibit 9? 24 25 MR. McGLOTHLIN: Well, it is in two parts. A moment FLORIDA PUBLIC SERVICE COMMISSION

1 ago Mr. Guyton said that he was waiting on some exhibits 2 because they are being sponsored jointly. With respect to what 3 has been identified as Number 9, as I understand it the 4 witness, Mr. Silva, cannot vouch for the numbers. And, in fact, identified Doctor Sim and Mr. Stillwagon as the source of 5 the numbers on here. So at a minimum it is premature to be 6 moved because we haven't had a chance to talk to the persons 7 8 whose work product this is.

9 The second part of it is this. I don't believe I 10 heard anything asked by Mr. Twomey to which this is responsive, 11 and if it was anticipatory redirect, I don't think it was 12 redirect on anything that I asked and I certainly don't 13 remember that Mr. Twomey asked that would elicit this as a 14 responsive answer. I asked a series of questions about whether 15 FPL had shopped for a one-year contract. This certainly isn't 16 in response to that, and I thought Mr. Twomey was following up 17 on the same line at the time this document appeared, so that is 18 the second part of my objection.

CHAIRMAN JABER: Your response, Mr. Guyton.

20 MR. MOYLE: Could I go ahead and state my objection 21 for the record, as well?

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CHAIRMAN JABER: Yes.

23 MR. MOYLE: I think the witness testified, if I 24 recall correctly, that the document was prepared on Monday of 25 this week. Today is Wednesday. I think it is unfair that

1 documents come into evidence that parties have not had an 2 opportunity to review, to test through depositions, or through 3 cross examination for that matter, because, again, this 4 document was brought out sort of inadvertently when Mr. Twomey 5 said what are you referring to. And as I understand the 6 Commission's rule with respect to exhibits it is that parties 7 have the right to use exhibits on cross examination. I don't 8 understand it that parties are able to get in additional 9 evidence on redirect, and so I don't think any of these 10 documents are appropriately introduced as somehow coming in on 11 cross examination. So for those reasons we would object.

CHAIRMAN JABER: Mr. Guyton, your response.

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13 MR. GUYTON: Madam Chairman. I would note several 14 things. One, Exhibit 9 has been addressed as to each and every 15 aspect of it. Where the numbers came from, when they were 16 developed, and they were all developed prior to the last week 17 to ten days. It was just simply the compilation of this that 18 Mr. Silva put together. The rule on redirect is relatively 19 straightforward, and that is it is fair game if the door has 20 been opened during cross examination. Clearly the door was 21 opened by Mr. Twomey both as to his questions and then his 22 follow-up question as to what document were you referring to when you answered the question. It was also responsive to 23 24 questions that were posed by the bench. I think it is fairly within the scope of redirect. There is no surprise here in the 25

sense that all these numbers have been testified to or will be
 testified to later in the hearing as to the composition of the
 data.

4 CHAIRMAN JABER: Here is what we are going to do. and, Mr. Guyton, this will be the last time I caution you about 5 6 this. Here is what happened. Commissioners asked a question, 7 Mr. Twomey says, witness, what document are you looking at. And before the witness gets to answer, you want to be helpful 8 9 to the Commission and you offer that you have an exhibit that you are going to bring up on redirect. I don't want that kind 10 11 of help. I want you to wait until redirect.

MR. GUYTON: Very well.

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13 CHAIRMAN JABER: Here is what we are going to do. 14 Mr. Moyle, with respect to the first part of your objection, I 15 have already ruled on it. With respect to the part of your 16 objection that you joined with Mr. McGlothlin as to another 17 witness being able to speak to the numbers, I am going to wait 18 on admitting this exhibit into the record until you have an 19 opportunity to cross examination that witness on the same 20 exhibit. Okay. So we are not going to address the admission 21 of Exhibit 9 for now. Exhibits 10 and 11, Mr. Guyton. Did I 22 hear that you wanted those admitted into the record?

MR. GUYTON: Yes, Madam Chairman. These were both
documents that were referred to by Mr. Silva during his cross
examination by Mr. Moyle.

MR. MOYLE: And I would just object along the same 1 2 lines that we previously stated. I mean, to the extent that counsel was aware that financial viability was an issue, it is 3 4 replete throughout the testimony that you have seen. It seems 5 to me that the financial viability information that was sent 6 out to the bidders could have easily been attached to the prefiled testimony in the case. And to all of a sudden bring 7 it out at the 11th hour when I personally have never seen this 8 9 document before. I think is unfair and not consistent with the 10 prehearing order, and we would object on those grounds as well 11 as the grounds that I have previously articulated with respect 12 to Number 9. I won't repeat them, but I think you understand 13 the gist of the concern.

14 CHAIRMAN JABER: And that is for both Exhibits 10 and 15 11, Mr. Moyle?

MR. MOYLE: Yes, ma'am. Number 11, I don't even know when it was prepared. I mean, if it was prepared last night or two days ago, I think that would be something that would be helpful to know and whatnot, but we just have no information on the document. And I think it is unfair to my client and my client's case to accept it into evidence without being afforded the opportunity to inquire about the document.

MR. GUYTON: Madam Chairman.

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CHAIRMAN JABER: Mr. Guyton, your response.
MR. GUYTON: I would note that both of these

1 documents have been provided during discovery in the course of 2 the broad discovery requests that were asked by CPV and other 3 parties. 4 CHAIRMAN JABER: With respect to Exhibits 10 and 11 5 your objection is overruled, Mr. Moyle. I would also note in 6 the same vein you think the company could have made you aware 7 of these exhibits, I would not you also have a responsibility 8 to do discovery and discover these exhibits. So Exhibits 10 9 and 11 will be admitted into the record. 10 MR. MOYLE: Thank you. 11 CHAIRMAN JABER: Thank you. 12 (Exhibits 10 and 11 admitted into the record.) 13 MR. McGLOTHLIN: Chairman Jaber, I move Exhibit 8, 14 which was the excerpt from the supplemental RFP. CHAIRMAN JABER: Mr. McGlothlin, without objection 15 Exhibit 8 will be admitted into the record. 16 17 (Exhibit 8 admitted into the record.) 18 CHAIRMAN JABER: Mr. Moyle, you have Exhibits 6 and 7. 19 Exhibit 8 was an excerpt from the supplemental RFP. 20 MR. MOYLE: I would move those in. 21 CHAIRMAN JABER: Without objection, Exhibits 6 and 7 22 are admitted into the record. Thank you. I apologize for the 23 long day. I do believe we are done with you, though. 24 THE WITNESS: Thank you very much, Madam Chairman, 25 Commissioners.

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1	(Exhibits 6 and 7 admitted into the record.)
2	CHAIRMAN JABER: FPL, go ahead and call your second
3	witness.
4	And, Commissioners, how about we take a ten-minute
5	break?
6	(Recess.)
7	CHAIRMAN JABER: Let's go back on the record.
8	Mr. Hill, whose turn is it?
9	MR. GUYTON: It's still my turn.
10	CHAIRMAN JABER: Mr. Guyton, do you want to call your
11	next witness?
12	MR. GUYTON: We call Doctor Steven Sim. I believe
13	Doctor Sim has previously been sworn.
14	THE WITNESS: That is correct.
15	Thereupon,
16	STEVEN ROBERT SIM
17	was called as a witness on the behalf of Florida Power and
18	Light, and having first been duly sworn, was examined and
19	testified as follows:
20	DIRECT EXAMINATION
21	BY MR. GUYTON:
22	Q Would you state your name, please, sir?
23	A Steven Robert Sim.
24	Q And by whom are you employed and in what capacity?
25	A Florida Power and Light as a supervisor in the
	FLORIDA PUBLIC SERVICE COMMISSION

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1	resource a	assessment and planning business unit.
2	Q	Doctor Sim, did you have occasion to prefile direct
3	testimony	in this case consisting of 40 typewritten pages?
4	А	Yes, I did.
5	Q	And did you have occasion to have prefiled on your
6	behalf an	errata sheet correcting that testimony?
7	А	That is correct.
8	Q	And if I were to ask you the questions as are
9	contained	in your prefiled direct testimony today, would the
10	questions	be the same as corrected by your errata sheet?
11	А	Both the questions and the answers would be the same.
12		MR. GUYTON: We would ask that Doctor Sim's prefiled
13	direct tes	stimony be inserted into the record as though read.
14		CHAIRMAN JABER: The prefiled direct testimony of
15	Steven R.	Sim shall be inserted into the record as though read,
16	and that w	will include the errata sheet for corrections to the
17	testimony	
18	Q	Doctor Sim, did you prefile exhibits with your direct
19	testimony	consisting of Document Numbers SRS-1 through SRS-8?
20	A	Yes.
21	Q	And does your errata sheet make corrections to your
22	documents	?
23	А	Yes, it does.
24	Q	And is the information in your documents true and
25	correct as	s corrected by your errata sheet?
		FLORIDA PUBLIC SERVICE COMMISSION

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1	A Yes.
2	MR. GUYTON: We would ask that Doc Sim's documents,
3	SRS-1 through SRS-8 be identified as the next exhibit.
4	CHAIRMAN JABER: SRS-1 through SRS-8, including the
5	errata sheet to the exhibits, will be identified as Composite
6	Exhibit 12.
7	(Composite Exhibit 12 marked for identification.)
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	FLORIDA PUBLIC SERVICE COMMISSION
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3	REPORTER'S NOTE: Page 287 reserved for prefiled testimony, but
4	was not needed. Transcript follows in sequence on Page 288.
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	FLORIDA PUBLIC SERVICE COMMISSION

1		BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION
2		FLORIDA POWER & LIGHT COMPANY
3		DIRECT TESTIMONY OF STEVEN R. SIM
4		DOCKET NOS. 020262-EI, 020263-EI
5		JULY 16, 2002
6		
7	Q.	Please state your name and business address.
8	A.	My name is Steven R. Sim, and my business address is 9250 West Flagler
9		Street, Miami, Florida 33174.
10		
11	Q.	By whom are you employed and what position do you hold?
12	A.	I am employed by Florida Power & Light Company (FPL) as a Supervisor in
13		the Resource Assessment & Planning Business Unit.
14		
15	Q.	Please describe your duties and responsibilities in that position.
16	A.	I supervise a group that is responsible for determining the magnitude and
17		timing of FPL's resource needs and then developing the integrated resource
18		plan with which FPL will meet those resource needs.
19		
20	Q.	Please describe your education and professional experience.
21	А.	I graduated from the University of Miami (Florida) with a Bachelor's degree
22		in Mathematics in 1973. I subsequently earned a Master's degree in
23		Mathematics from the University of Miami (Florida) in 1975 and a Doctorate

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in Environmental Science and Engineering from the University of California
 at Los Angeles (UCLA) in 1979.

While completing my degree program at UCLA, I was also employed fulltime as a Research Associate at the Florida Solar Energy Center during 1977-1979. My responsibilities at the Florida Solar Energy Center included an evaluation of Florida consumers' experiences with solar water heaters and an analysis of potential renewable resources including photovoltaics, biomass, wind power, etc., applicable in the Southeastern United States.

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In 1979 I joined FPL. From 1979 until 1991 I worked in various departments 11 including Marketing, Energy Management Research, and Load Management 12 where my responsibilities concerned the development, monitoring, and cost-13 effectiveness of demand side management (DSM) programs. In 1991 I joined 14 my current department, then named the System Planning department, as a 15 Supervisor whose responsibilities included the cost-effectiveness analyses of a 16 variety of individual supply and DSM options. In 1993 I assumed my present 17 position. 18

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Q. Are you sponsoring an exhibit in this case?

- A. Yes. It consists of the following documents:
- 22

23 SRS-1, Projection of FPL's 2005 and 2006 Capacity Needs;

	SRS-2, List of Organizations Submitting Outside Proposals;
	SRS-3, Summary of Eligible Outside Proposals;
	SRS-4, FPL (EGEAS) Rankings of Individual Outside Proposals
	(June 4, 2002);
	SRS-5, Summary of Best Plans: with EGEAS and One FPL Unit Only
	Adjustment Costs (June 18, 2002);
	SRS-6, Capacity Plans Selected for Transmission Integration Cost
	Calculation;
	SRS-7, Summary of Best Plans: with Total Costs (June 18, 2002)
	SRS-8, Summary of Best Plans: with Total Costs (Final)
_	
Q.	Are you sponsoring any part of the Need Study and Appendices in this
Q.	Are you sponsoring any part of the Need Study and Appendices in this proceeding?
Q. A.	
	proceeding?
	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of
	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor
	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the
	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the
Α.	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the Need Study.
А. Q .	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the Need Study. What is the purpose of your testimony?
А. Q .	proceeding? Yes. I am sponsoring Section IV in the Need Study. I cosponsor Section V of the Need Study with Mr. Silva, Dr. Green, and Mr. Yupp. I also sponsor Appendices C, D, E, F, J, and K, and cosponsor Appendices M and N, to the Need Study. What is the purpose of your testimony? My testimony has six main points. First, I discuss FPL's resource planning

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meeting its resource needs in 2005 and 2006. Fourth, I discuss the outside proposals that FPL received in response to its Supplemental RFP. Fifth, I explain the process FPL used in analyzing the outside proposals and FPL construction options. Sixth, I present the results of these analyses.

FPL's Resource Planning Process

Q. What is the objective of FPL's resource planning process?

A. FPL's integrated resource planning (IRP) process was developed in the early 9 1990's and has been used since then to determine three things: 1) when new 10 resources are needed, 2) what the magnitude (MW) of the needed resources 11 are, and 3) what type of resources should be added. The determination of what 12 type of resources should be added is based on which resources result in the 13 lowest average electric rates for FPL's customers. (Note that when only power 14 plants or power purchases are the resources in question, the determination can 15 16 be made on the basis of lowest total costs. The lowest total cost perspective in 17 these cases is the same as the lowest average electric rate perspective since the number of kilowatt-hours over which the costs are distributed does not change 18 19 as is the case when demand side management resources are being examined.)

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Q. Please provide an overview of this resource planning process.

The IRP process has 4 main tasks. These 4 tasks are as follows:

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1		- <u>Task 1:</u> Determine the magnitude and timing of FPL's new resource
2		needs.
3		- <u>Task 2:</u> Identify which resource options and resource plans are eligible
4		to meet the determined magnitude and timing of FPL's resource needs
5		(i.e., identify the eligible competing options and resource plans).
6		- <u>Task 3:</u> Determine the economics for the total utility system with each
7		of the eligible competing options and resource plans.
8 ·		- Task 4: Select a resource plan and commit, as needed, to near-term
9		options.
10		
11		As previously mentioned, FPL has used this basic resource planning approach
12		for its major resource decisions since the early 1990's.
13		
14	Q.	Was this resource planning approach also used for the Supplemental
15		RFP evaluation?
16	A.	Yes. FPL first determined the timing and magnitude of its resource needs.
17		Then it determined which resource options were eligible to meet those needs
18		and, using the eligible options, developed competing resource plans with
19		which to address the resource needs. The economics of these competing
20		resource needs were then determined, and a decision was made as to the best
21		resource plan for FPL's customers.
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II.

FPL's Resource Needs for 2005 and 2006

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Q. How did FPL decide it needed additional resources for the 2005 – 2006 time frame, and what were the magnitude of these resource needs?

FPL uses two basic analytical approaches in its reliability analyses to A. 5 determine the timing and magnitude of its future resource needs. The first 6 approach is to project reserve margins for both winter and summer peak hours 7 for future years. A minimum reserve margin criterion of 15% is used to judge 8 the projected reserve margins through the winter of 2004. Then, starting with 9 the projected reserve margin for the summer of 2004, and for all projected 10 winter and summer reserve margins for subsequent years, the minimum 11 criterion increases to 20%. This increase in the reserve margin criterion is due 12 to a Commission approved stipulation by FPL, Florida Power Corporation, 13 and Tampa Electric Company to adopt a 20% reserve margin standard. 14

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The second approach is a Loss-of-Load-Probability (LOLP) evaluation. 16 Simply stated, LOLP is an index of how well a generating system may be able 17 to meet its demand (i.e., a measure of how often load may exceed available 18 resources). In contrast to the reserve margin approach, the LOLP approach 19 looks at the daily peak demands for each year, while taking into consideration 20 the probability of individual generators being out of service due to scheduled 21 maintenance or forced outages. LOLP is typically expressed in units of 22 "numbers of times per year" that the system demand could not be served. 23

- FPL's LOLP criterion is a maximum of 0.1 days per year. This LOLP 1 criterion is generally accepted throughout the electric utility industry. 2
 - For a number of years now, FPL's projected need for additional resources has
- been driven by the summer reserve margin criterion. In other words, the 5 summer reserve margin criterion is projected to be violated before either the 6 winter reserve margin or LOLP criterion are violated. This again was the case 7 in FPL's reliability analysis that was the basis for FPL's projected 2005 and 8 2006 capacity needs. The additional MW are needed to meet both the 2005 9 and 2006 summer reserve margin criterion of 20%. The additional MW 10 needed by the summer of 2005 are projected to be 1,122 MW. Another 600 11 MW are projected to be needed by the summer of 2006. In total, an additional 12 1,722 MW of new resources are needed for these two years. This projection is 13 shown in Document SRS-1. This projection relies upon FPL's load forecast 14 that is addressed by Dr. Leo Green in his testimony. 15
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Could FPL have met this 1,722 MW total need for 2005 and 2006 with **Q**. 17 additional demand side management (DSM)? 18

- No. Mr. Dennis Brandt addresses specific DSM information in his testimony. A. 19 I will address the question from a planning perspective as well. 20
- 21

In regard to additional DSM, there is not enough additional cost-effective DSM to meet this large resource need in the time frame in question. There are several bases for this conclusion.

First, the sheer size of the need (1,722 MW) is more than double the size of the latest DSM Goals amount of 765 MW. Stated differently, the entire DSM Goals amount is only 44% of the total capacity needed.

However, even if one were to consider the smaller of the two units FPL plans 9 to add (the 789 MW of incremental capacity from the Martin Conversion 10 project), and account for a 20% reserve margin requirement, 658 MW of 11 additional, cost-effective DSM would be needed to avoid this capacity 12 addition. This amount of additional DSM equates to 86% of the entire 765 13 MW DSM Goals value. In other words, FPL would need to almost double its 14 DSM implementation to avoid the need for the Martin Conversion project, 15 even though the Commission has already found that FPL's current DSM goals 16 are all that can be achieved on a cost-effective basis. 17

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Second, this 765 MW DSM Goals value is to be achieved over a 10-year period, but there are only 3 years (mid-2002 to mid-2005) before the need must be filled. This time period is less than 1/3 of the DSM Goals 10-year period. Assume for a moment that somehow there was <u>another</u> 658 MW amount of reasonably achievable, cost-effective DSM out there. It is

completely unrealistic to believe that this amount of DSM could be 1 implemented in 3 years. This becomes even more unlikely as one factors in 2 the several months, at least, that would be needed to successfully petition the 3 Commission for approval to offer new programs and/or increase incentives for 4 existing programs before these changes could be implemented. This would 5 likely shrink the 3 year period to $2\frac{1}{2}$ years at most. 6 7 Third, it is unreasonable to assume that there even is a significant amount of 8 additional reasonably achievable, cost-effective DSM available to be captured.

<u>additional</u> reasonably achievable, cost-effective DSM available to be captured.
 Recall that the DSM Goals are based on <u>all</u> of the cost-effective DSM
 available to the utility at the time the Goals are set. There was no challenge to
 FPL's DSM goals as being too low. Therefore, there is no basis to assume that
 suddenly there is another vast amount of cost-effective DSM to be obtained.

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Consequently, I do not believe that additional, cost-effective DSM could meet the need planned to be filled by either of the new FPL generating units discussed in these dockets.

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19 III. The Supplemental RFP

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- 21Q.Please describe the objective of FPL's Supplemental Request for22Proposals.

A. FPL had one primary objective in issuing its Supplemental RFP. That was to solicit outside proposals for meeting FPL's capacity needs for 2005 and 2006. The submitted proposals would be compared to FPL's construction options to determine the best approach for meeting FPL's 2005 and 2006 capacity needs.

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Q. How did the Supplemental RFP differ from the RFP FPL initially issued on August 13, 2001?

A. Aside from the changes in the key dates associated with the evaluation and
decision steps that would subsequently take place, there were several key
changes.

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First, the Supplemental RFP forms were changed to make it easier to distinguish between cost and performance data for the different operational modes (base operation, duct firing, etc.) of combined cycle generating units that were expected to be the bases for many of the proposals. (These different operational modes, when "activated," typically allow a generating unit to produce more MW while changing the overall heat rate of the unit.)

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Second, the fee structure was changed to allow bidders to the initial RFP to submit the same number of proposals for Supplemental RFP evaluation without having to incur any additional evaluation fees. These "repeat" bidders who wanted to submit a greater number of bids, or new bidders submitting a bid for the first time, were charged a one-time \$10,000 Supplemental RFP

evaluation fee rather than separate fees (that totaled to \$10,000) for registering for the initial RFP, for submitting a Notice of Intent to Bid, and for evaluating the proposal.

Third, FPL's 5 "next planned generating units" that were published in the 5 initial RFP were replaced in the Supplemental RFP with two FPL generating 6 units: a new 4x1 combined cycle unit at Manatee (Manatee CC unit) and a 7 conversion of two existing combustion turbine units at Martin into a similar 8 4x1 combined cycle unit (Martin Conversion project). Since at the time of 9 issuing the initial RFP (August 2001) FPL had not yet determined from its 10 2001 planning studies what the most cost-effective capacity options were, it 11 provided 5 capacity additions that had been identified in the 2000 planning 12 studies as the most cost-effective choices for FPL's 2005 and 2006 needs. 13

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The Manatee CC unit and the Martin Conversion project were subsequently identified as the most cost-effective options in the 2001 planning work and were used in the initial RFP evaluation work. Consequently, FPL included only these two units as the "next planned generating units" in the Supplemental RFP.

20

Finally, several other changes were made in response to comments made by bidders to the initial RFP. Although none of these issues had been serious enough to prevent FPL from receiving 80 eligible bids in response to the

initial RFP, FPL chose to change several potentially contentious items in the 1 Supplemental RFP. These included: allowing natural gas "tolling" proposals 2 (in which FPL would be responsible for securing gas for the project in 3 question) that were previously disallowed, reducing the requirement to hold 4 proposals (and their prices) firm from 390 days to 120 days, softening the 5 "regulatory out" language from the possibility of terminating contracts to 6 reducing payments to cost recoverable levels, and removing the "legislative 7 out" language. 8

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Q. Please describe the Supplemental RFP process from the time of issuing the Supplemental RFP to the date the proposals were received.

The Supplemental RFP document was announced on April 26, 2002, in an A. 12 advertisement in the Wall Street Journal and in news releases to numerous 13 newspapers throughout Florida. Additional Supplemental RFP advertisements 14 subsequently appeared in Florida newspapers. (Copies of these advertisements 15 and news releases appear as Appendix J in the Need Study.) On April 26, 16 2002, FPL sent by overnight mail a copy of the Supplemental RFP to all of the 17 parties who had submitted a bid to FPL's initial RFP. FPL later received a 18 number of requests for the Supplemental RFP from parties who had not 19 submitted a bid to the initial RFP, and these parties were then sent a copy of 20 the Supplemental RFP document by overnight mail. (A copy of the 21 Supplemental RFP appears as Appendix F in the Need Study.) 22

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1		EDI informed each Supplemental PED document recipient that a special EDI
1		FPL informed each Supplemental RFP document recipient that a special FPL
2		website was set up to post questions from potential bidders that concerned
3		how to submit a bid and the cost and performance specifications for FPL's
4		two "next planned generating units" that were included in the Supplemental
5		RFP. Answers to those questions were published on the website. This website,
6		which was designed to be available only to parties who had received the
7		Supplemental RFP, allowed questions to be posed until one week before bids
8		were due. A copy of the questions and answers posted on FPL's
9		Supplemental RFP website are included as Appendix K to the Need Study.
10		
11		The due date for these proposals was May 24, 2002. On that date, FPL
12		received proposals from 16 organizations that, in the aggregate, offered over
13		12,500 MW of capacity for the 2005 and 2006 time frame.
14		
15	IV.	Overview of the Outside Proposals
16		
17	Q.	Please provide a general description of the proposals that FPL received in
18		response to the Supplemental RFP.
19	A.	As previously mentioned, FPL received proposals from 16 organizations
20		(bidders). A listing of the bidders that submitted proposals is presented in
21		Document SRS-2. This document also lists the type of proposal(s) submitted
22		and the technology on which the proposal(s) was based. In summary,
23		proposals were received from 13 non-utility bidders, 2 Florida utilities, and 1

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non-Florida utility. The majority of the proposals were power purchase 1 2 offerings rather than "turnkey" proposals. The vast majority of the proposals 3 were based on combined cycle technology, while a few were based on existing utility system units or on combustion turbine technology. 4 5 Q. How many proposals did FPL actually receive for its evaluation? 6 7 A. These 16 bidders originally submitted 53 proposals. However, by the time the proposals were ready to be evaluated, the number of proposals found to be 8 eligible for evaluation had been reduced to 31. 9 10 Q. What led to the reduction in the number of proposals that FPL 11 evaluated? 12 A. There were several reasons for the reduction. First, one bidder who had 13 submitted 12 proposals to FPL's initial RFP submitted 16 proposals in 14 response to the Supplemental RFP. The evaluation fees paid for the evaluation 15 of 12 proposals in the initial RFP covered the evaluation of 12 proposals in the 16 Supplemental RFP. When this bidder was contacted and it was explained that 17 18 it could either pay an additional evaluation fee to cover the additional 4 proposals or withdraw 4 of its 16 proposals, the bidder chose to withdraw 4 19 specific proposals. Consequently, the number of proposals was reduced from 20 21 53 to 49.

1		Second, there were three bidders who were determined to be ineligible to
2		participate in the Supplemental RFP. Mr. Rene Silva addresses the reasons for
3		FPL's decisions in regard to these three bidders in his testimony. As a result
4		of these decisions, all of the proposals from these three bidders, 18 proposals
5		in total, were ineligible for evaluation. This further reduced the number of
6		proposals eligible to be evaluated from 49 to 31.
7		
8 `		A summary of the eligible outside proposals is given in Document SRS-3.
9		
10	Q.	Did the proposals clearly provide the information FPL requested for its
11		evaluations so that FPL could immediately begin its evaluations?
12	А.	No. Although the quality of the responses to the Supplemental RFP in terms
13		of completeness of information was decidedly better than that provided in
14		response to FPL's initial RFP, problems still existed. FPL reviewed all
15		proposals that had been received on May 24, 2002. By May 26, FPL had
16		marked up the "problem" pages from the proposals regarding basic technical
17		and/or price information and faxed them back to the respective bidders. The
18		bidders then had several days in which to provide corrected/complete data on
19		revised pages. All of the bidders who received such a fax on May 26 complied
20		with this request and provided revised basic technical/price information.
21		
22	V.	Overview of the Economic Evaluation Process
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Q. What was the general approach used in the economic evaluation work?

A. FPL conducted its own evaluation of all of the outside proposals and the two FPL construction options. In addition, separate analyses of these options were performed by an independent consultant, Mr. Alan Taylor of Sedway Consulting, Inc. Since Mr. Taylor's testimony addresses his analysis, I will focus on FPL's evaluation.

- 8 FPL first ensured that its analyses of the outside proposals, and those 9 performed by Mr. Taylor, were "blind." In other words, the analyses of the 10 outside proposals were conducted without organizational names or project 11 locations attached to the proposals. FPL's construction options could not be 12 evaluated "blind" because these two options, the Manatee CC unit and the 13 Martin Conversion project, were unchanged from the initial RFP evaluation 14 work and were, therefore, easily recognizable.
- 15

FPL then used what I will describe as a 4-step evaluation approach to determine the economics of the proposals. This approach is based on creating capacity expansion plans that utilize either the outside proposals only, the FPL construction options only, or a combination of these two types of capacity options to meet FPL's 2005 and 2006 capacity needs. For 2007 and beyond, greenfield "filler" units are added as needed to maintain FPL's reserve margin.

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1	FPL uses the Electric Generation Expansion and Analysis System (EGEAS)
2	model in its analyses. This model was designed by Stone & Webster for the
3	Electric Power Research Institute (EPRI) some years ago, and FPL has used it
4	since its development.
5	
6	The 4-step evaluation approach that uses the EGEAS model can be
7	summarized as follows:
8	
9	Step 1: Individual Rankings of Outside Proposals:
10	This involved economic analyses of each individual outside proposal and then
11	a ranking of these results. One ranking was made for all outside proposals
12	with a 2005 starting date and another separate ranking was made for all
13	outside proposals with a 2006 starting date.
14	
15	Step 2: Creation of Two "Tiers" of Outside Proposals:
16	Based on the results of the individual rankings of the 2005-start-date outside
17	proposals and the 2006-start-date outside proposals, all of the outside
18	proposals were then separated into two "tiers," Tier 1 and Tier 2.
19	
20	Tier 1 included a number of outside proposals that were the highest ranked
21	(i.e., had the lowest costs in the individual rankings) for each "start year" and
22	Tier 2 contained the remaining outside proposals for each start year. In a
23	number of cases, a bidder would submit several proposals that were identical

except for the proposed length of service; 10 years, 15 years, etc. These 1 similar proposals often would appear closely bunched in the individual 2 rankings. In such cases, only the highest ranked proposal would be named to 3 Tier 1 and the rest of the similar proposals would be placed in Tier 2. 4 5 Step 3: Expansion Plan Analyses (Using Tier 1 Starting Points and Tier 2 6 "Challenges"): 7 The two FPL construction options, the Manatee CC unit and the Martin 8 Conversion project, had emerged from the initial RFP analyses as the most 9 cost-effective options. Therefore, these two FPL options were carried over 10 into the Supplemental RFP analyses to compete with the new outside 11 proposals. The individual outside proposals and two FPL construction options 12 were then used to create 5 "types" of capacity plans designed to meet FPL's 13 2005 and 2006 capacity needs. 14 15 The 5 types of capacity plans were designed to maximize each option's 16 opportunity to combine within a capacity plan that would be economically 17 competitive. These 5 types of capacity plans were: 18 19 All Outside Plan (outside proposals only for both the 2005 and 1) 20 2006 capacity needs); 21

- 12)Combination Plan with Manatee Only (outside proposals2combined with FPL's Manatee unit that could start in either32005 or 2006);
- 4 3) Combination Plan with Martin Only (outside proposals 5 combined with FPL's Martin project that could start in either 6 2005 or 2006);
- 74)Combination Plan with Manatee and Martin Separated8(Manatee and Martin starting in different years with one or9more outside proposal completing the remaining capacity10needs for 2005 since neither the Martin nor Manatee units11alone are sufficient to meet FPL's 2005 capacity needs); and,
 - All FPL Plan (Martin Conversion project and Manatee CC unit both starting in 2005).
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A large number of plans of each of these 5 types (except the All-FPL self build plan) were developed and analyzed. The most economic plans of each type were then carried forward for further analysis. This resulted in a number of the 3 combination plan types, plus several All Outside plans and the All FPL Plan, being carried forward to capture two types of additional costs in order to obtain a picture of the total costs of each of these plans.

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22 <u>Step 4: Total Cost Analyses:</u> After identifying the most economic plans from 23 the Step 3 analyses, additional cost information not included in the Step 3

analyses was incorporated. The two additional costs are transmission 1 integration costs and the costs that would be incurred by FPL as a result of 2 entering into additional power purchases ("equity penalty" costs). These two 3 costs for each plan were calculated and added to each plan's costs that were 4 developed in Step 3. The sum of these costs was the total cost of each plan. 5 The results of this total cost analysis of the plans were then compared to 6 determine the most cost-effective plan. This most cost-effective plan, in turn, 7 identified the most cost-effective individual options. 8 .

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10Q.Please explain how the Tier 1 and Tier 2 groupings were used and the11"challenges" concept in Step 2 of the analysis.

A. The "tier" approach was suggested by Mr. Taylor and used by both FPL and Mr. Taylor in the Supplemental RFP evaluation. This approach is an alternative to completely dropping a number of outside proposals after the initial ranking evaluation work. It allowed all of these proposals to stay in the evaluation and ensured them a number of opportunities at being selected in a capacity plan. It is perhaps best explained by describing how the All Outside plan analysis was carried out.

19

Once the Tier 1 outside proposals were named, FPL's EGEAS model that had been used in FPL's individual ranking evaluation was again used to determine the best All Outside plan that used only Tier 1 proposals. The entire group of Tier 1 proposals was used as a starting point from which the most economical

subset of Tier 1 proposals to meet FPL's 2005 and 2006 capacity needs was 1 selected. Once that plan was determined, each of the Tier 2 proposals 2 "challenged" this plan one at a time in a challenge "run." In a challenge run, a 3 specific Tier 2 proposal was "fixed" into the plan in its appropriate starting 4 year by requiring EGEAS to select it in that year. Then EGEAS would 5 optimize a new plan "around" the fixed proposal considering all of the Tier 1 6 proposals that were not mutually exclusive to the "fixed" Tier 2 proposal. 7 8 Once EGEAS had selected the best possible plan from this mix, this best All Outside plan and its costs were noted. 9

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At that point the specific Tier 2 proposal was removed and the next highest ranked Tier 2 proposal was "fixed" into the plan and the process was repeated. This continued until all the Tier 2 proposals had participated in a challenge run. The best All Outside plans from each challenge run were then compared and the lowest cost plan from the original Tier 1 case and all the Tier 2 challenge runs became the best All Outside plan.

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Q. The example given above described how the best All Outside plan was developed. Was a similar process used to determine other types of capacity plans?

A. Yes. This process was followed with each Tier 2 proposal having an
 opportunity to compete for a spot in the All Outside plan, the Combination
 Plans with Manatee Only, and the Combination Plans with Martin Only. In

these two types of combination plans, the FPL unit in question was also "fixed" into the plan. First, a best plan was determined with this fixed FPL unit and the Tier 1 outside proposals. Second, one Tier 2 proposal at a time would also be fixed, along with the one FPL unit, and the plan would be optimized around these two fixed units using the Tier 1 proposals. Then this challenge run process would be repeated using each of the remaining Tier 2 proposals.

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For the other two types of plans, the All-FPL self build plan and Combination 9 Plans with Manatee and Martin Separated, this process was not followed for 10 11 various reasons. For the All FPL Plan, there were no outside proposals included in this plan by definition so no challenges from Tier 2 proposals 12 were possible. For Combination Plans with Manatee and Martin Separated, 13 the fact that either Manatee or Martin would come in-service in 2006 meant 14 that there was no need for additional capacity in 2006. Therefore, none of the 15 2006 start date Tier 2 proposals challenged. As for the 2005 start date 16 proposals, since FPL's need in 2005 was relatively small (i.e., 15 MW if 17 Manatee came in-service in 2005 or 333 MW if Martin came in-service in 18 2005), only the best outside proposals were considered likely 2005 candidates. 19 Therefore, only the Tier 1 proposals with a 2005 start date challenged for this 20 type of combination plan. 21

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Q.

Why didn't FPL simply optimize an expansion plan using all of the options at the same time?

A. There were simply too many options for such a direct approach to be used. The number of outside proposals, even without the two FPL construction options, made this approach unworkable. Perhaps the best way to explain this is through an example of a more "typical" FPL analysis of generation options.

FPL's annual IRP work includes an economic evaluation of a number of FPL 8 construction options in order to determine what type of unit(s) FPL should 9 build to meet future needs. The evaluation is also conducted using the EGEAS 10 model. In a more typical year, FPL evaluates a list of FPL construction 11 options in its IRP work. In recent years, the number of construction options on 12 this list has ranged from approximately 6 to 16. FPL "loads" all of these 13 options into EGEAS at the same time, and, in one computer run, can 14 determine the most economic expansion plan. Such a run typically can be 15 made in a matter of hours using FPL's main frame computer in a time-sharing 16 mode. 17

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However, the EGEAS model has a direct limitation in the number of options it can evaluate in one run and an indirect limitation in regard to the time it takes to complete an evaluation. In other words, the more options there are to evaluate and/or the longer the time period addressed in the analysis, the longer the computing time. The absolute limitation on the number of options EGEAS can evaluate in one run is 50. However, from a practical standpoint in a 30year analysis, one must limit the number of options (or option "slots" in EGEAS) to less than half of 50 in order to get results in hours instead of a day or more.

A major factor in deciding the size of these groups is EGEAS run time. The 6 run time, in turn, is primarily dictated by the number of options being 7 evaluated. In addition, many of the options, both outside proposals and the 8 two FPL construction options, had a duct firing or power augmentation 9 operational mode for the generating unit in question in addition to the units' 10 base operational mode. To be properly modeled, each of those operational 11 modes is treated as a separate "unit" that is "linked" to the generating unit's 12 base operation mode (that is also modeled as a separate unit). In other words, 13 if the EGEAS model selects the base operation "unit," it must also select the 14 associated duct firing or power augmentation "unit" as well if the generating 15 unit in question has duct firing or power augmentation capability. This means 16 that one generating unit proposal can take two option slots in an EGEAS run if 17 it has two operational modes. Taking these considerations into account, FPL 18 decided on a practical limitation of approximately 20 option slots that would 19 be included in any one run. 20

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22 23 Q.

Why is it appropriate to perform these evaluations based on the costs of an expansion plan?

A. It is not only appropriate to do this, but also necessary if one is to capture all 1 of the impacts an option will have on FPL's system, and on costs to be 2 3 incurred by FPL's customers, in a given year and over time. For example, assume we are comparing Option A and Option B. Option A has a heat rate of 4 7,000 Btu/kWh and is offered to FPL for 5 years while Option B has an 8,000 5 Btu/kWh heat rate and is offered for 10 years. Evaluating these options from 6 an expansion plan perspective allows one to capture the economic impacts of 7 both the heat rate and term-of-service differences. The lower heat rate of 8 Option A will allow it to be dispatched more than Option B, thus reducing the 9 run time of FPL's existing units more than will Option B. This results in 10 greater production cost savings for Option A. However, Option B's longer 11 term-of-service means that it defers the need for the future generation that will 12 be needed when its term-of-service ends longer than will Option A. Therefore, 13 Option B will get capacity avoidance benefits for more years. Only by taking 14 a multi-year, expansion plan approach to the evaluation will factors such as 15 these be captured. 16

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- 18

Q. Why are the "filler" units needed in the evaluation?

A. The "filler" units are needed in an expansion plan analysis to meet FPL's capacity needs for 2007 and beyond. In this way one can ensure that the expansion plans being compared all meet FPL's reliability criteria for each year in the analysis period. By using these filler units, the expansion plans

being compared are valid (i.e., they meet the reliability criteria), and the results of the comparison are meaningful.

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Q. What type of "filler" units were assumed in the evaluation?

A. Two types of filler units were used: a 4x1 combined cycle (CC) unit and a combustion turbine (CT). The CC option was used to meet FPL's capacity needs for the 2007 – 2018 time frame, while the CT was used from 2019 – 2030.

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Based on results of the initial RFP analyses and the expedited time frame of 10 the Supplemental RFP process, only one unit (either the CC unit or the CT 11 unit) was the available filler unit option in EGEAS for each year in the 2007 -12 2030 time frame. Although a CC unit is generally a more economic choice for 13 FPL's system than a CT, if the CC unit is added in the later years of an 14 analysis time period, there are not enough remaining years in the analysis 15 period over which the fuel savings of the CC unit can overcome its higher 16 17 capital costs. Therefore, the CT unit becomes the economic unit addition in the later years (2019 - 2030) to meet FPL's reserve margin. 18

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20 VI. The Results of the Analyses

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Q. What were the results of the individual rankings of the outside proposal
 analyses carried out in the Step 1 analysis?

1	А.	Using the EGEAS results	, FPL developed an individual ranking of the outside
2		proposals that had a 200	5 start date and an individual ranking of the outside
3		proposals that had a 2006	5 start date. Document SRS-4 presents the results of
4		FPL's individual rankings	s as of June 4, 2002 when the Tier 1 and Tier 2 group
5		selections were made.	
6			
7	Q.	In Step 2 of the analysis	, which of the 31 individual proposals were placed
8		in Tier 1 and which wer	e placed in Tier 2?
9	А.	Based on the individual r	ankings that had been performed by June 4, 2002 by
10		FPL and Mr. Taylor, 11 c	of the 31 proposals were placed in Tier 1. Of these, 7
11		had a 2005 start date and	4 had a 2006 start date.
12			
13		A greater number of 20	005 start date proposals (7) than 2006 start date
14		proposals (4) were selec	ted for Tier 1 because FPL's 2005 capacity need
15		(1,122 MW) is greater th	an its 2006 capacity need (600 MW). These Tier 1
16		proposals were:	
17		With a 2005 start date:	With a 2006 start date:
18		1) P32	P42
19		2) P5	P44
20		3) P26	P33
21		4) P20	P28
22		5) P3	
23		6) P50	
24		7) P1	

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All of the remaining 20 outside proposals were placed in the Tier 2 grouping. 1 (See Document SRS-3 for a listing and description of all proposals.) 2 Continued refinement of the outside proposals carried out after these June 4, 3 2002 selections were made altered these individual rankings somewhat. 4 However, the Tier 2 "challenge" aspect of the approach ensured that all 5 outside proposals, regardless of whether the proposals were in the Tier 1 or 6 Tier 2 groups, were repeatedly analyzed for inclusion in the All Outside and 7 combination plans as previously discussed. Therefore, this subsequent change 8 in the individual rankings did not affect the results of these analyses. 9 10 Q. In Step 3 of the analysis, what was the most economic All Outside plan 11 and what were its costs? 12 The most economic All Outside plan as determined in Step 3 of FPL's A. 13 analyses was as follows: 14 For 2005: P5, P20, and P32 15 For 2006: P42 16 17 The EGEAS cost in cumulative present value of revenue requirements 18 (CPVRR) of this best All Outside plan is \$41,975 million. (All costs described 19 throughout the remainder of this testimony are given in terms of 2001 - 203020 costs in 2001 dollars.) 21 22

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The EGEAS cost of this plan, and of all of the plans that will be discussed in 1 the remainder of this testimony, includes the proposed total payments to each 2 of these outside proposals (including startup costs), the costs of the necessary 3 filler units from 2007-on, and the costs of fuel for the entire FPL system over 4 the time period. The proposed startup costs for each outside proposal were 5 included in the EGEAS optimization evaluations for the Supplemental RFP. 6 The startup cost calculations utilized the proposed "cold" startup costs and an 7 assumed number of annual startups of 6 per CC unit and 100 per CT unit. 8 (This is the same calculation that was performed in the initial RFP evaluation 9 work, but it is being calculated as part of the EGEAS optimization for the 10 Supplemental RFP analysis instead of separately from the EGEAS work, then 11

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Q. How does the cost of the most economic All Outside plan compare to the costs of the most economic plans of the other 4 types of capacity plans evaluated?

added to the EGEAS results, as was the case in the initial RFP analysis.)

A. A comparison of a number of the most economic plans of each of the 5 types of capacity plans is shown in Document SRS-5. Results as of June 18, 2002 for 36 capacity plans are shown in this document. These results include the EGEAS results plus a cost adjustment to the FPL construction option if only one of the two FPL construction options is built. (The costs presented in the Supplemental RFP document for FPL's "next planned generating units" accurately portray the total costs if both projects are built with these total costs

apportioned to each project. However, because both projects are very similar 1 -a 4x1 CC unit is the end result of both projects – the two projects will share 2 certain items such as engineering design, spare parts, etc. and will be able to 3 take advantage of bulk material purchase discounts. This results in cost 4 savings that benefit both projects. However, if only one of the two projects is 5 built, these cost savings disappear and greater costs will be borne by the one 6 project to be built. Consequently, a cost adjustment is needed to combination 7 plans in which only one FPL project is built. At this stage of the work, the 8 . assumption was that a "Manatee only" plan would incur \$14 million 9 (CPVRR) of extra costs while a "Martin only" plan would incur no such extra 10 costs.) 11

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The Document SRS-5 results show that a combination plan with only one 13 FPL unit (Martin) has the lowest total of the EGEAS cost plus the "one FPL 14 unit only" adjustment cost: \$41,603 million (CPVRR). This plan is then 15 followed by numerous other combination plans and the All-FPL self build 16 plan. Finally, the two best All Outside plans are presented and are shown to be 17 significantly more expensive than any of the other plans since the lowest cost 18 All Outside plan has a cost of \$41,975 million (CPVRR), which is more than 19 \$370 million more expensive than the lowest cost combination plan at this 20 point. 21

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23 Q. What conclusion can be drawn from these Step 3 analysis results?

1	А.	It is clear from these results that even the most economic capacity plans made
2		up solely of outside proposals (i.e., the All Outside plans) are not competitive
3		with either combination plans made up of at least one FPL construction option
4		or with the All-FPL self build plan.
5		The decision as to whether a combination plan or the All-FPL self build plan
6		is most economical would be made only after the remaining costs not included
7		in the Step 3 calculations were incorporated in Step 4 of the analysis.
8		
9	Q.	What remaining costs were incorporated in the Step 4 analysis?
10	A.	Step 4 incorporates two types of costs: transmission integration costs and the
11		costs that would be incurred by FPL as a result of entering into additional
12		power purchases (equity penalty costs). These two types of costs were
13		calculated and added to the costs previously developed in Step 3.
14		
15	Q.	How would you describe these two type of costs and how was each type of
16		cost calculated?
17	А.	I will give a description of each type of cost and an explanation of how these
18		costs were calculated.
19		
20		1) <u>Transmission integration costs</u> : All of the outside proposals and the
21		two FPL construction options included a cost for interconnecting the
22		unit with the FPL system. The interconnection cost can be thought of
23		as the transmission capital cost needed to simply interconnect that unit

with the electrical grid. However, the Supplemental RFP directions called for no inclusion of proposed/projected transmission integration costs. If one thinks of the interconnection costs as being the transmission capital expenditures necessary to get a unit's power to the grid, the integration costs can be thought of as the transmission capital costs necessary to deliver that unit's power output throughout the grid to the customers.

A transmission assessment for 28 capacity plans was performed under the direction of Mr. Donald Stillwagon. Document SRS-6 presents these 28 plans that had been selected for further analysis. The selection of these 28 plans was designed to develop transmission integration costs that would be representative for all 36 plans previously presented in Document SRS-5.

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Estimates of the transmission integration direct construction costs for 16 the 28 plans were provided by Mr. Stillwagon. These direct 17 construction cost values were given in monthly cash flows in 2002 18 dollars. These values were escalated as appropriate for the years in 19 which they were to be incurred, then these values had AFUDC 20 (Allowance for Funds Used During Construction) costs added to them 21 (except for the All Outside Plan). Next, this new subtotal of integration 22 costs with AFUDC were converted into annual revenue requirements. 23

Finally, the cumulative present value of revenue requirements (CPVRR) of these transmission integration costs, discounted to 2001 dollars, was then added to the previously calculated costs from Step 3 for each of the 36 capacity plans. Appendix M to the Need Study document provides detail on the transmission integration cost calculations.

- 8 2) <u>Equity Penalty Costs:</u> Equity penalty costs are applicable only to 9 outside power purchase proposals, not to FPL construction or outside 10 turnkey project options. The cost of the equity needed to support 11 FPL's own construction projects or turnkey projects is already 12 reflected in the CPVRR values for these options.
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Equity penalty cost calculations for each of the outside power purchase 14 proposals that appeared in the 36 plans carried forward were reviewed 15 by FPL's Finance Department and Dr. William Avera. The testimonies 16 of Dr. Avera and Mr. Moray Dewhurst address the appropriateness 17 and methodology of these calculations. The cumulative present value 18 of these annual equity penalty costs for each of these outside proposals 19 20 was then calculated and summed for the groups of outside proposals making up each of these 36 plans. This total net present value of the 21 equity penalty costs for each group was then added to the other costs 22 23 described above to derive a total cost estimate for each of the 36 plans.

1 The total CPVRR costs for the 36 plans were then compared at the end of the Step 4 analyses. 2 3 **Q**. What were the economic results after incorporating the costs described 4 above? 5 A. The total cost results as of June 18, 2002 are presented in Document SRS-7. 6 The format for this document is identical to that of Document SRS-5 with the 7 8 addition of the transmission integration and equity penalty costs. 9 **Q**. What conclusions can be drawn from these results? 10 11 A. Four main conclusions can be drawn. First, the relative rankings of a number of the plans changed. Second, the changes did not improve the relative 12 economics of the best All Outside plan. In fact, when total costs are accounted 13 14 for, the best All Outside plan is \$471 million (CPVRR) more expensive than 15 the most economical plan. Third, the second best plan includes both FPL's 16 Manatee and Martin projects, coming in-service one year apart, with a small, 17 short-term purchase also added in 2005. This second best plan is \$21 million (CPVRR) more expensive than the most economical plan. The fourth, and 18 19 most important, conclusion is that the All FPL Plan is the most economical capacity plan. Consequently, the Manatee CC unit and the Martin Conversion 20 project are the two most cost-effective options with which to meet FPL's 2005 21 and 2006 capacity needs. 22

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Q. Were the results of the total cost analyses used as a basis for selecting bidders for the Short List?

- A. Yes. Mr. Silva addresses this in his testimony.
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Q. Did FPL make any changes to the values shown in Document SRS -7 after the Short List was announced?

Yes. Four changes were subsequently made to these values. Two of these A. 7 changes were to the "one FPL unit only" cost adjustment that had been made. 8 When combination plans with only one FPL unit were introduced to the 9 analysis, the previously stated assumption was that "Manatee Only" 10 11 combination plans would need their cost adjusted upwards by approximately \$14 million (CPVRR) while no adjustment would be needed for "Martin 12 Only" combination plans. Further analysis showed that the "Manatee Only" 13 plans should be adjusted by \$16 million (instead of by \$14 million) (CPVRR) 14 and the "Martin Only" plans should be adjusted by \$15 million (CPVRR) 15 instead of no adjustment being needed. 16

17

A third change was to the cash flows of four of the transmission integration cases. These revised cash flows were developed by Mr. Stillwagon after his review of the integration calculations was completed. New AFUDC and revenue requirements calculations were then performed for these four cases. The net effect of the changes to these transmission integration cases was

and a change (an increase) of approximately \$3 million for the fourth case. 2 3 A fourth change was to the equity penalty calculations for two outside 4 proposals, P4 and P25. The original calculations for these two proposals had 5 6 inadvertently been carried out for more years than their proposals called for. 7 Correcting these calculations reduced the equity penalties for two plans that included the P4 proposal by \$5 million and for another two plans that included 8 the P25 proposal by \$2 million. 9 10 The impact of all four of these changes on the total costs of the 36 plans is 11 presented in Document SRS-8. 12 13 **Q**. Did these changes significantly affect the results of the analyses? 14 A. No. The All-FPL self build plan was the most economical plan before these 15 changes were made by \$21 million (CPVRR) and by \$58 million (CPVRR) 16 over the 2nd best and 3rd best plans, respectively. After the changes were made 17 the ranking of these 3 plans stayed the same. The All-FPL self build plan 18 remained the most economical plan with no change in its economic advantage 19 over the 2nd best plan and with an increase of \$1 million (CPVRR) in its 20 economic advantage over the 3rd best plan (i.e., the \$58 million advantage had 21 increased to \$59 million). 22

relatively small; a change of less than \$1 million for three of the four cases

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1		In addition, the two bidders named to the Short List based on their proposals
2		being included in the 2^{nd} and 3^{rd} best plans before these changes were made
3		were still the top bidders after the changes were made (i.e., their proposals
4		were still included in the 2^{nd} and 3^{rd} best plans).
5		
6	Q.	Did the negotiations result in either of the short-listed bidders lowering
7		their price?
8	Α.	No. Mr. Silva addresses the negotiations in some detail in his testimony. As
9		he testifies, the prices increased as a result of the negotiations.
10		
11	Q.	What was the magnitude of this increased cost on your economic
12		analysis?
12 13	А.	analysis? A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and
	A.	
13	A.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and
13 14	A.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than
13 14 15	A.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost
13 14 15 16	A.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost factors by the bidder. These factors increased the cost of this plan by \$24
13 14 15 16 17	A.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost factors by the bidder. These factors increased the cost of this plan by \$24 million (CPVRR) so that this plan was now \$83 million (CPVRR) more
13 14 15 16 17 18	А. Q.	A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost factors by the bidder. These factors increased the cost of this plan by \$24 million (CPVRR) so that this plan was now \$83 million (CPVRR) more
13 14 15 16 17 18 19		A look at the 3 rd best plan in Document SRS-8 (Manatee and P5 in 2005, and P42 in 2006) showed that it was \$59 million (CPVRR) more expensive than the All-FPL self build plan before FPL was informed of the increased cost factors by the bidder. These factors increased the cost of this plan by \$24 million (CPVRR) so that this plan was now \$83 million (CPVRR) more expensive than the All-FPL self build plan.

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margin criterion of 20% for those years, FPL needed 1,122 MW by mid-2005 and another 600 MW by mid-2006.

Because the types of new power plants that FPL would build (CC units) to meet these needs are those that would require a determination of need, in mid-August of 2001 FPL issued a Request for Proposals for new capacity to meet these 2005 and 2006 needs. The evaluation of the proposals received in response to this initial RFP ended with the decision that FPL's Manatee CC unit and the Martin Conversion project were the most economic choices.

Subsequently, FPL issued a Supplemental RFP on April 26, 2002. Sixteen organizations, including both utilities and non-utilities, submitted 53 separate proposals for meeting FPL's 2005 and 2006 capacity needs. Thirty-one of these proposals were found to be eligible for evaluation versus FPL's two construction options, the Manatee CC unit and the Martin Conversion project.

Step 1 of the evaluation of the 31 eligible outside proposals initially established a ranking of the most economic individual outside proposals with a 2005 start date and a ranking of the most economic individual outside proposals with a 2006 start date. Using these rankings, Step 2 of the evaluation grouped all of the 31 outside proposals into two "tiers." Tier 1 contained 11 of the most economic outside proposals. All remaining outside proposals were placed in Tier 2.

In Step 3 of the evaluation, 5 types of capacity plans to meet FPL's 2005 and 1 2006 capacity needs were developed and analyzed. These analyses initially 2 used the Tier 1 group of outside proposals followed by "challenge" runs in 3 which Tier 2 proposals were "fixed" into the plan one at a time and a new 4 capacity plan was optimized. In this way, all of the outside proposals had a 5 chance to combine with other outside proposals, and with one or both of 6 FPL's two construction options, to create a competitive capacity plan. All of 7 the work described to this point was carried out with FPL's EGEAS model. 8 Thirty-six competing plans emerged from Step 3 of the analysis and were 9 carried forward for further analysis. 10

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Once work was completed in Step 3, two additional costs that had not been included in the Step 3 work were applied in Step 4 to these 36 plans. These additional costs were transmission integration costs and equity penalty costs. These costs were added in order to develop a total cost picture of these capacity plans.

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The final total cost picture that resulted from Step 4 showed that an All-FPL self build plan consisting of the Manatee CC unit and the Martin Conversion project both being added in 2005 was the most economical plan by \$21 million (CPVRR) over the 2nd best plan. This 2nd best plan consisted of both FPL's Manatee and Martin projects plus a small, short-term purchase. All other plans were at least \$59 million (CPVRR) more expensive than the AllFPL self build plan. Subsequent negotiations with the bidder whose proposals were the most competitive, P42 and P44 (See Document SRS-3), resulted in costs for these proposals increasing so that the 3rd best plan was now \$83 million rather than \$59 million (CPVRR) more expensive than the All-FPL self build plan.

7 Therefore, the results of FPL's analyses show that FPL's Martin Conversion 8 project and new 4x1 CC unit at Manatee are the most cost-effective 9 alternatives and the best choices for meeting FPL's 2005 and 2006 capacity 10 needs.

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12 **Q.** Does this conclude your testimony?

13 A. Yes.

Errata Sheet Direct Testimony of Steven R. Sim Docket Nos. 020262-EI and 020263-EI

Page, Line

1 I

Correction

FPSC-COMMISSION CLERK

Document No. SRS-5 (no line number)	- For Plan Ranking number 15: Change "41,642" for "EGEAS Costs", "Subtotal Costs", and "Total Costs" and "39" for "Total Cost Differential" to "41,687" for "EGEAS Costs", "Subtotal Costs", and "Total Costs" and to "84" for "Total Cost Differential". (Note that "Plan Ranking" for this plan drops from "15" to "28" and all plans previously ranked 16 to 28 move up one spot in the rankings.
	 For Plan Ranking number 18: Change "Manatee, P26" (2005), "P4, P44" (2006) to "Manatee, P5" (2005), "P4, P44" (2006)
Document No. SRS-7 (no line number)	 For Plan Ranking number 10: Change "41,642" for "EGEAS Costs", "41,772" for "Subtotal Costs" and "Total Costs" and "85" for "Total Cost Differential" to "41,687" for "EGEAS Costs", and to "41,817" for "Subtotal Costs" and "Total Costs", and to "130" for "Total Cost Differential". (Note that "Plan Ranking" for this plan drops from "10" to "20" and all plans previously ranked 11 to 20 move up one spot in the rankings. For Plan Ranking number 28: Change "Manatee, P26" (2005), "P4, P44" (2006) to "Manatee, P5" (2005), "P4, P44"
	(2006) DOCUMENT NI MPERADATE 10354 SEP 26 8

Document No. SRS-8 (no line number)

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- For Plan Ranking number 8: Change "41,642" for "EGEAS Costs", "41,772" for "Subtotal Costs" and "Total Costs", and "85" for "Total Cost Differential" to "41,687" for "EGEAS Costs", and to "41,817" for "Subtotal Costs" and "Total Costs", and to "130" for "Total Cost Differential". (Note that "Plan Ranking" for this plan drops from "8" to "20" and all plans previously ranked 9 to 20 move up one spot in the rankings.

For Plan Ranking number 27: Change "Manatee, P26" (2005), "P4, P44" (2006) to "Manatee, P5"(2005), "P4, P44" (2006)

329 BY MR. GUYTON: 1 2 Doctor Sim, do you sponsor portions of the need study 0 3 and need study appendices? Yes. I do. 4 Α 5 And which portions do you sponsor, sir? 0 6 I sponsor Section 4 of the need study, I co-sponsor Α 7 Section 5 of the need study with Mr. Silva, Doctor Green, and 8 Mr. Yupp, I co-sponsor Appendix C, M, and N, and sponsor D, E, 9 F, J, and K, plus the confidential appendices. 10 And is the information contained in the need study 0 and appendices which you sponsor true and correct to the best 11 12 of your knowledge and belief? 13 Yes. Α 14 Doctor Sim, would you please summarize your direct Q 15 testimony? 16 Good afternoon, Commissioners, Madam Chairman. Yes. Α I will begin the summary of my direct testimony by briefly 17 18 going over FPL's capacity need which has already been discussed 19 at some length. But just to summarize, we identified a 20 capacity need in 2005 for 1,122 megawatts, and a need for an additional 600 megawatts for 2006. As you know, we conducted 21 22 what I will call the initial RFP in 2001, which resulted in the 23 finding that the Martin and Manatee units were the most 24 cost-effective options for meeting those capacity needs. And 25 we then followed that up with a supplemental RFP in the spring

1 of this year.

2 Now, in regard to the initial RFP documents, and 3 there were a number of changes that were made to the 4 supplemental RFP document, including simplified forms for 5 bidders to fill out, no fees for repeat bidders who had bid 6 into the initial RFP. We listed the Manatee and Martin units 7 as the next planned generating units, and in addition there 8 were a number of changes that were made directly in response to 9 comments we had received from bidders in the initial RFP. And 10 these included the fact that we would now allow gas tolling bids in the supplemental RFP. We reduced the requirement to 11 12 hold bids firm from 390 to 120 days. We significantly softened 13 the regulatory-out language, and we completely removed the 14 legislative-out language.

As far as the solicitation itself, we considered it to be a very successful one. It generated 53 outside proposals that were received from 16 different bidders. And after taking approximately a week to clear up some missing or confusing information, we were left with 31 eligible proposals from 13 different bidders that we went forward with into the evaluation.

Now, as far as the economic evaluation, there were actually two economic evaluations, both of them very comprehensive. One of them was carried out by FPL, the other was carried out by the independent evaluator, Sedway

Consulting. FPL and Sedway used different computer models and
 different approaches to their evaluation, and I will address
 the FPL approach briefly here in my summary.

4 Our approach was essentially a four-step approach in 5 which the first three steps used the EGEAS computer model. In 6 the first step we went through an individual ranking of every 7 one of the 31 outside proposals. In the second step, we took 8 those individual rankings and we created two different tiers of 9 the 31 outside proposals. In the third step, which involved 10 expansion plan analyses using the Tier-1 proposals as starting 11 points and then using the Tier-2 proposals as challengers, we 12 allowed each of the 31 outside proposals numerous turns at bat, 13 so to speak, to allow them the opportunity to earn a spot into 14 one of four types of expansion plans which would then compete with the All-FPL plan that consisted of Martin and Manatee 15 16 coming in in 2005.

17 Now, those four types of expansion plans that they 18 could compete for a spot in included the All-Outside plan, 19 which consisted of only outside proposals; a combination plan 20 of outside proposals and the Martin unit; a combination plan of 21 outside proposals and the Manatee unit; and then finally a 22 combination plan that included both Martin and Manatee, but 23 split by a year with outside proposals making up the capacity 24 difference in 2005.

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Now, once all of that work had been done using the

1 EGEAS model, we went to the fourth and final step in our 2 economic evaluation, which was a total cost analysis. We took 3 the results coming out of EGEAS and we added to that the costs from transmission integration calculations and the equity 4 5 penalty cost calculations. As far as the evaluation results, 6 well, there was one significant answer that came out early out 7 of the EGEAS analyses, and that was that the All-Outside plan. 8 In other words, the plan consisting only of outside proposals. 9 was significantly more costly than either the combination plans 10 or the All-FPL plan. The best of the All-Outside plans was at least \$300 million cumulative present value of revenue 11 12 requirements more expensive than any plan that included one or 13 two FPL units.

14 The significance of that result was it was clear at 15 that point that the best solution after the total cost analysis 16 had been done would contain at least one of the two FPL units. 17 And at that point we took every expansion plan that was within 18 \$100 million of the best plan to that point and we calculated 19 transmission integration costs and equity penalties and rolled 20 them into the EGEAS costs. With the total cost result being 21 after all of these costs had been captured that the All-FPL 22 plan consisting of Martin and Manatee in 2005 was at least \$83 23 million less expensive than any plan that included just one FPL 24 unit, and approximately \$500 million more expensive -- or less 25 expensive in this case than any plan that included no outside

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1	proposals.
2	The conclusion we drew and the conclusion that was
3	backed up by the independent evaluator's results, as well, was
4	that the Martin and Manatee units in 2005 represent the best
5	and the most cost-effective solution for meeting our customers'
6	capacity needs in 2005 and 2006.
7	And that concludes my summary.
8	CHAIRMAN JABER: Thank you.
9	MR. GUYTON: We tender Doctor Sim.
10	CHAIRMAN JABER: Mr. Moyle.
11	MR. MOYLE: Thank you.
12	CROSS EXAMINATION
13	BY MR. MOYLE:
14	Q Good afternoon, Doctor Sim. I'm Jon Moyle on behalf
15	of CPV, and I have a few questions for you on cross
16	examination.
17	A Good afternoon.
18	Q Isn't it true in your view that this evaluation
19	process should be an apples-to-apples comparison?
20	A Yes, within reason.
21	Q And I don't want to go back over a lot of ground we
22	have already plowed, but I understand you are the person who
23	was really in charge of the economic analysis for Florida Power
24	and Light, correct?
25	A Yes, I supervised the economic analysis for FPL.
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1 MR. MOYLE: As a preliminary matter, Madam Chair, Mr. 2 Guyton and I have talked about this, I want to ask the same 3 question with respect to that settlement agreement of all the 4 witnesses. To the extent Mr. Guyton can stipulate that none of 5 the witnesses know, it will save this line of questioning, but 6 I think I will probably just go ahead and need to ask the 7 question of every witness with respect to the settlement agreement that we talked about earlier. 8

9 CHAIRMAN JABER: Well, hang on, let's see if we can 10 get a stipulation.

MR. GUYTON: Madam Chairman, I simply don't know the answer to that as to all the FPL witnesses, if they have any knowledge as to why Calpine withdrew.

14 CHAIRMAN JABER: Well, Mr. Moyle, I don't think you 15 have any objection to asking this witness, and then after this 16 witness give Mr. Guyton an opportunity to talk to the rest of 17 his witnesses and perhaps a stipulation is obtainable.

18 MR. GUYTON: We will endeavor to inquire, Madam19 Chairman.

20 CHAIRMAN JABER: Thank you, Mr. Moyle. Go ahead. 21 BY MR. MOYLE:

Q Doctor Sim, you were in the room earlier when we had some discussion about some testimony that was found in your rebuttal testimony. Do you recall that with respect to a certain bidder who withdrew his proposals and since it withdrew

335 1 there was no remaining plan that has a lower total revenue 2 requirement than the All-FPL plan even without an equity 3 penalty? Do you recall that line of questioning? 4 Yes. This was the bidder we are not supposed to Α 5 mention. I remember that. 6 And without mentioning that bidder, do you know the 0 7 bidder who is referenced in your rebuttal testimony at Page 16, 8 Line 2, whether a settlement agreement between FPL and that 9 bidder has been reached? 10 MR. GUYTON: Objection to the question. The same continuing objection. I don't want to reargue it, I just want 11 12 to preserve it. 13 CHAIRMAN JABER: Mr. Moyle, do you want to put a 14 response on the record? 15 MR. MOYLE: I can just incorporate the previous 16 arguments I made as to why I believe the guestion is pertinent 17 and relevant to the case, if that is acceptable to the chair. 18 I don't want to burden the record. 19 CHAIRMAN JABER: That's fine. And for purposes of 20 the record, I have allowed those two specific questions. 21 BY MR. GUYTON: 22 I think you are free to answer, sir. 0 23 I believe your question was am I aware of any Α 24 settlement agreement that may have been reached, the answer is 25 no, I do not know if such an agreement was reached.

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1	Q And you don't know one way or the other, correct?
2	A That is correct.
3	Q Who within your organization might know?
4	A I don't know.
5	Q Okay. There has been discussion about this
6	15-megawatt issue. You would agree that the 15 megawatt, Mr.
7	Twomey did a calculation, represents less than 1/10th of one
8	percent of FPL's total system?
9	A Yes, that is approximately correct.
10	Q And if you had this 15 megawatts you could defer the
11	construction of the Martin 8 unit, could you not, for a year?
12	A The answer would be yes, if we had it. However, I
13	don't believe it is appropriate to try to go outside of the RFP
14	and try to find 15 megawatts either through DSM or purchases to
15	fill that need.
16	Q But you don't have to go outside the RFP, do you?
17	A We did not get 15 megawatts from any bid that was
18	submitted in response to the RFP, so in order to get 15
19	megawatts you would have to go outside it.
20	Q But in the initial RFP didn't you ask for renewable
21	proposals?
22	A We asked for renewable proposals for megawatt hours,
23	for nonfirm energy only.
24	Q Did you get any renewable proposals that in your
25	review of them were in the 15 megawatt range?
	FLORIDA PUBLIC SERVICE COMMISSION

A Hard to say because we never got megawatt values. We only got megawatt hour values, annual megawatt hour production values.

Q Did you ever talk to any of these bidders about maybe trying to do a deal where they would give you 15 megawatts in 2005, these were people who responded to your renewable portion of your initial RFP?

A No. Shortly after we received the renewable bids in,
those were segregated out and handed off to another individual
in another department for them to deal with that aspect of the
RFP.

12 Q So is it your testimony that you never did pursue 13 talking to any of the renewable folks about a 15-megawatt firm 14 deal, correct?

A To my knowledge we never pursued it because that was not the intent of that portion of the RFP. We were seeking energy only and not capacity. We allowed in the initial RFP for those bidders who wished to bid into the renewable portion to also bid firm capacity in the other aspect of the RFP, the aspect we are talking about here today. None of them did so. They bid energy only.

22

Q How many renewable proposals did you receive?

23

A Either four or five.

Q And can you translate for me how many megawatts that represented?

338 No. I can't. because I never tried to calculate 1 А megawatts because the values they gave us were megawatt hours, 2 3 in some cases annual. in some cases seasonal. Part of this is probably my fault, because I'm not 4 0 sure I understand how to translate megawatt hours into 5 6 megawatts, but let me ask you this. Did you receive a bid from 7 an entity that had a biomass facility of approximately 80 megawatts in the renewable portion? 8 My recollection is there was a bid from a biomass 9 Α facility, but I don't recall either the megawatts hours or 10 whether there was any reference as to megawatts. 11 12 Do you know if this bidder, that you previously had 0 13 this bidder under a firm contract for megawatts? 14 The bidder that bid the biomass? Α Right. 15 0 I simply don't recall. 16 Α Are you aware of the Okeelanta facility? 17 Q 18 Α Yes. And that is a biomass facility, right? 19 0 That is not what I was referring to. I would call 20 Α 21 that more of a waste to energy type facility than biomass. 22 Let's talk about the Okeelanta facility just for one Q 23 guick second. What kind of facility is that? If you are referring to what was bid in by Okeelanta 24 Α to the renewable portion of our project, it has been too long 25 FLORIDA PUBLIC SERVICE COMMISSION

339 since I looked at that bid for me to recall precisely what it 1 2 is they were proposing. And you previously had a firm contract with that 3 0 4 facility, did you not, you being FPL? 5 Α I believe that is the case. 6 0 There was a exhibit that was used with the previous 7 witness, and it has been admitted into evidence as Number 9. 8 Do you have any familiarity with that document? 9 CHAIRMAN JABER: No, I did not admit that. It is 10 identified as Exhibit Number 9, it was not admitted yet. 11 BY MR. MOYLE: 12 Do you have any familiarity with the document that 0 has not been admitted, but is identified as Number 9, and is 13 14 entitled incremental cost to customers if determination of need is not granted for the conversion of Martin Unit Number 8 15 16 compared to the FPL plan? 17 I don't have a copy of that document. If I could Α 18 take a look at it, please. Sure. I only have one myself. 19 Q 20 All right. I have reviewed it. Α 21 Have you reviewed it prior to coming here today? 0 22 Α No, I have not seen it prior to today. 23 So if I asked you questions about how FPL believes it Q 24 is going to save 15 or \$16 million by building Manatee and 25 Martin at the same time, I think it actually may be 31 if you

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1	add the 16 and the 15, would you be able to answer those
2	questions?
3	A I can probably take you a good bit of the way there,
4	yes.
5	Q Okay. Well, I will get into that in a second here.
6	Let me ask you a question about technology risk. That was a
7	criteria that you all used in evaluating bids, isn't that
8	correct?
9	A That would be a nonprice aspect of evaluating bids
10	that I did not have a part in. Mr. Silva would have been the
11	appropriate witness to discuss that with. I dealt with the
12	economics.
13	Q Okay. Are you familiar with the four-on-one
14	configuration that is being used in these proposed power
15	plants?
16	A Only in the most general terms.
17	Q Isn't it true that the FPL system only has one
18	four-on-one unit in operation today?
19	A I believe that is correct.
20	Q And that is Sanford, correct?
21	A Yes.
22	Q And you have had problems with Sanford, correct, in
23	terms of its coming on-line?
24	A The answer it yes. My understanding is one of the
25	four combustion turbines had problems with it. Mr. Yeager, I'm
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1 sure, could provide whatever detail level you would like on 2 that. 3 Okay. And I maybe should have asked this of Mr. 0 4 Do you know how that fact that this four-on-one, the Silva. 5 only place in Florida Power and Light's system that it 6 currently exists is having problems was factored into with 7 respect to analyzing technological risk? 8 Α Again, Mr. Silva was the appropriate witness to ask 9 nonprice factor evaluations. I don't know how the 10 technological risk evaluation was prepared or was developed. 11 CHAIRMAN JABER: Doctor Sim. the unspoken rule is you 12 get to pass the ball forward, you don't get to push it back. 13 BY MR. MOYLE: 14 When we talked during your deposition, I think we 0 15 were talking about this 15-megawatt issue, and I asked you 16 whether pushing back the Martin unit one year would be more 17 expensive or less expensive. And I believe you answered it 18 would be more expensive if they were constructed at the same 19 time. Do you recall that? 20 Can you point me to the page in my deposition, Α 21 please? 22 I think it is Page 104 of your deposition. Q Yes. 23 Could you restate the question, please. Α 24 0 Let me get you your deposition in front of you. Ι 25 think that's fair.

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Α

I have it. I have Page 104 in front of me.

Q Page 104, Line 10. I asked you did I understand you when you testified earlier that splitting the plant actually results in some savings as compared to doing them at the same time. Could you read your answer, please?

Yes, I will read the answer to the question. I said 6 Α 7 all else equal. And I can't comment on what it would do to the 8 transmission integration costs because we didn't do that 9 calculation. But in terms of you take the same plant, you move 10 it back a year, you have got some escalation going forward, but 11 you have got greater discounting going back, so the costs of 12 plant you move back is going to be lower. And that referred to 13 the capital cost portion of the plant. So in regard to capital 14 that answer is correct, there would be some savings. But as I 15 mentioned here, it doesn't account for the total cost picture of transmission integration costs, nor does it account for any 16 17 fuel savings that you might enjoy if you had built that plant 18 on schedule in 2005.

19 Q Okay. But you don't have any detailed information 20 about fuel cost savings and things like that as reflected in 21 this Exhibit 9, do you?

A Well, it shows a higher system fuel cost of \$55 million if you do not build Martin in 2005 and instead delay a year and build it in 2006.

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Yes, I am aware of what it says. I'm asking you

343 don't have any independent knowledge of it other than what the 1 2 document says. is that correct? 3 Α No. that is not correct. That calculation, that 4 piece of this calculation was pulled, I believe, from the 5 late-filed exhibit that staff had requested at my deposition 6 and which we subsequently supplied. 7 Q And did you do that calculation? 8 Α It was done at my direction. 9 Are you familiar with the arrangement that FPL Group 0 10 has related to turbines that it has agreed to receive? 11 Α No. 12 0 Who would be familiar with that? 13 Of our witnesses, Mr. Yeager would be the appropriate Α 14 one to talk to about that. 15 MR. MOYLE: May I approach? 16 BY MR. MOYLE: 17 I am handing you a document that at the bottom is 0 18 identified as FPL Document 00102057ND. Are you familiar with 19 this document? 20 Yes. It looks like a piece of a longer set of Α 21 e-mails. 22 Q Not relating to this case, but in general terms. could you describe to me what icing on the cake means to you? 23 24 I would say the term icing on the cake means that Α 25 little bit extra that is added to sweeten the dish, so to

speak, thinking of the cake as the whole dish. 1 2 So, for example, if somebody got into Harvard 0 3 University and they got in with a scholarship, the scholarship in common usage could be known as the icing on the cake. Would 4 5 you agree with that? Assuming they were wealthy enough to go there 6 Α 7 otherwise, yes, that would be the icing on the cake. 8 Now, when used in this e-mail you are indicating that 0 FPL's self-build options won the RFP even without the use of 9 10 the equity penalty, correct?

A The answer is yes, but you have to put this in context as to when this appeared. If you see the date under my name there, it was January 10th of this year. We were in the initial RFP evaluation. At that point we had asked our finance department to do a check of the equity penalty calculation that we had performed.

They did the check. My recollection is I got a voicemail message back from the individual in the finance department, and because that was the only piece of the overall evaluation they saw, the question was posed to me in the voicemail message, we have checked the numbers, they are correct, is this the entire cake or words to that effect. And I am responding back.

Now, at that point the closest plan we had to the All-FPL plan was approximately 59 or \$60 million more expensive

345 than the All-FPL plan before the equity penalty was added in. 1 2 Therefore, there was a clear decision at that point without 3 adding in the equity penalty. The equity penalty would have 4 approximately doubled that differential, but it was immaterial 5 at that point. And, therefore, in response back to that 6 voicemail in corresponding back to Lisa, who worked for that 7 individual in finance, I have stated in the e-mail that the 8 equity penalty it is not only the cake, meaning it is not the 9 deciding factor, it is not even the icing, it is more like the 10 candle because it is immaterial to the decision at that point. 11 Q And that related to the initial RFP, correct? 12 That is correct. Α 13 Now, you also used the equity penalty in the 0 14 supplemental RFP, correct? 15 Yes. It is a real cost, so therefore we did include Α 16 it in both RFP evaluations. 17 I want to show you an exhibit that was appended to 0 18 the testimony of Mr. Silva, and I will just come over there if 19 it was okay with the Chair and show him that and ask him a few 20 questions about it. But, for the record, I am going to ask him 21 questions about RS-7 that was appended to Mr. Silva's direct 22 testimony. 23 CHAIRMAN JABER: Thank you, Mr. Moyle. BY MR. MOYLE: 24 25 Mr. Sim, I am showing you what is an exhibit to 0 FLORIDA PUBLIC SERVICE COMMISSION

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1	Mr. Silva's testimony, and ask if you have seen that exhibit
2	before?
3	A Yes, I have seen it.
4	Q Okay. And just so I understand what that is, there
5	is an equity penalty cost, is that right?
6	A Yes, there is a column entitled equity penalty cost.
7	Q Okay. So if I'm reading it right, under Group B
8	there is an equity penalty that has been applied or imposed of
9	\$105 million, is that right?
10	A You're looking at Group B?
11	Q Yes.
12	A That is correct. The equity penalty cost that was
13	calculated is 105 million for that group of proposals.
14	Q And then if you look over to the right, the cost
15	difference versus the All-FPL is 87 million, correct?
16	A That is correct.
17	Q So would I be calculating that right if the equity
18	penalty were not imposed that there would be a difference,
19	whatever 87 minus 105 is, that that would be the difference
20	between the Group B proposal and the All-FPL plan?
21	MR. GUYTON: I object to the term imposed. I think
22	Doctor Sim has previously characterized that as it was applied.
23	It's just a mischaracterization of his testimony, it's
24	prejudicial.
25	CHAIRMAN JABER: Thank you, Mr. Guyton. Mr. Moyle,
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 1 your response, or rephrase the question.

2 MR. MOYLE: We can use applied, the equity penalty 3 being applied.

4 BY MR. MOYLE:

Q I think the pending question was with respect to that Group B there, if you didn't apply the equity penalty, Group B would have had a lower cost than the All-FPL plan, correct?

A The answer would be yes with two caveats. Number one, if we had removed a real cost, in this case the equity penalty cost, and the second if is if Bidder X, which has since withdrawn from the case and withdrawn all of their proposals were still around, which they are not. So, therefore, this plan is no longer a feasible or viable contender.

14 Q And Bidder X is the one I asked you about the 15 settlement agreement with, right?

A Yes.

16

Q The same question with respect to Group C. If you don't apply the equity penalty in Group C, Group C beats FPL's all cost proposal by \$11 million, is that correct?

A No, I read it exactly the opposite. The cost difference versus FPL is 122 million. If you were to remove the real equity penalty cost of 111 million, you would still be \$11 million more expensive than the All-FPL plan.

24 Q Okay. So out of that group which ones are better 25 than the All-FPL plan if you don't apply the equity penalty?

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348 1 A Currently today, none. 2 0 And that is because of what happened with respect to 3 Group B that you just testified to? 4 With Group B and with Group D. Bidder X has Α 5 withdrawn all proposals and has withdrawn from the case. 6 0 Okay. Thank you. To move the thing along, I will 7 let you hold onto that exhibit, but I will need to grab it back 8 from you. There has been some testimony from Mr. Silva about 9 the grouping of the bids. You didn't tell the bidders that 10 their bids would be grouped together, did you? 11 The supplemental RFP document did indicate that we Α would evaluate them individually and/or in combination, so they 12 13 were aware of that. 14 Did you tell them definitively that they would be 0 15 evaluated in groups or did you say you may evaluate them in 16 groups? 17 If you will give me a moment to check the Α 18 supplemental RFP, I will get the exact language. On Page 18, 19 and I will quote, "A proposal may be evaluated by itself or in 20 combination with other proposals." So that was the language, 21 Commissioners, that we put into the supplemental RFP. However, 22 we felt it should have been obvious to the sophisticated organizations that would bid into the RFP that with a capacity 23 24 need of 1,122 megawatts in one year and an additional 600 25 megawatts in the other, that unless they chose a companion to

go in with, or if they proposed a full -- a large enough bid 1 2 from one or more units to fill either one years full capacity 3 needs or the entire 1,722-megawatt capacity needs, FPL would 4 have to combine them either with an FPL unit or with other 5 outside proposals. Otherwise there is no way we could meet our 6 capacities needs. So we didn't feel like we needed to explain 7 that they definitely would be included in with other proposals 8 or with FPL units. We felt it should have been obvious. 9 CHAIRMAN JABER: Excuse me. Hang on one second. 10 Doctor Sim, could you read me the language one more time. 11 please. 12 THE WITNESS: Yes. Madam Chairman. The language 13 reads, "A proposal may be evaluated by itself and/or in 14 combination with other proposals." 15 CHAIRMAN JABER: Thank you. 16 BY MR. MOYLE: 17 So you don't read may to say that it will be, do you? 0 18 No, but then again we didn't know what type of Α 19 proposals we were getting. In the initial RFP we had at least 20 one bidder that tried to fill the entire 1,722 megawatts by 21 themselves. In that case they would not have been combined 22 with another proposal, but we felt it was obvious that anybody who came in at a relatively small amount of megawatts would 23 have to be combined with somebody otherwise there is no way we 24 25 could create a plan to meet the full need.

350 1 An and/or in that sentence that you read, those have 0 2 different meanings, do they not? 3 Α And or do mean different things, yes. 4 You're a doctor, so I'm going to ask you this 0 question. One is conjunctive and the other is disjunctive, 5 6 would that be a fair statement? 7 Α I'm not that kind of doctor. 8 0 The dependent consultant that you used, you refer to 9 him as independent because he is not employed by FPL, correct? 10 He is really an outside consultant? 11 He is an outside consultant and conducted an Α 12 independent evaluation. 13 And you believe that his evaluation was independent? 0 14 Α Yes, those were his instructions. 15 Now, were you aware that -- or do you know did your 0 16 consultant ever talk to you and say words to the effect of why 17 are you guys going with the 1,722, you would get more 18 proposals, more combinations of proposals if you only went out 19 and asked for the megawatts represented by the Manatee unit. 20 Did you ever that conversation or words to that effect? 21 Α As long as you termed it words to that effect, yes. 22 In the initial RFP, Mr. Taylor, the president of Sedway 23 Consulting, asked us would you consider an expansion plan that 24 fell 15 megawatts short in the year 2005. And after thinking 25 about it we answered no. The impression we think we gave and

1 the one we intended to give in the RFP is we would go out and 2 meet a 20.0 percent reserve margin, and that is what we want to 3 be held to here. And there were a variety of reasons for that.

Q I'm not an expert on computer modeling, but isn't it true that if you ran the model just for the Manatee unit alone that you would have gotten more options than when you ran it for both units combined?

A Do you mean by that question if we had run it -- if
we had run the computer model to select expansion plans for
10 1,107-megawatt need?

Q Yes.

11

12 Α Mathematically I think the answer is yes. I Okav. 13 mean, given a set number of options that you have, the lower 14 the threshold you have to hit, the more theoretical 15 combinations could meet that. But, again, that would ignore the fact that we had agreed with the Commission to plan to a 16 20.0 percent reserve margin. That was the impression we gave 17 18 in the RFP and that was the path that we decided to take and 19 not deviate from in the evaluation.

We are getting, as we can see today a number of questions as to why we did not do what we said we would do, but I would much prefer for the company to be in that stance and be trying to answer questions as to why did you not play the game the way you said you would play it rather than having made changes, come in at a smaller amount of megawatts, and be

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1	accused of changing the rules of the game after the bids had
2	come in.
3	Q I am going to I think, I guess, you are answering
4	yes or no. Your counsel will have a chance to ask you a lot of
5	questions on redirect. I have a few more questions.
6	MR. GUYTON: I move to strike that last remark. It
7	is not part of a question.
8	CHAIRMAN JABER: No.
9	BY MR. MOYLE:
10	Q You testified in rebuttal in general terms, I'm
11	going to try to speed it along and not refer you to it unless
12	you feel you need to find it. But that a lot of proposals were
13	received because a lot of proposals were received that that
14	to your way of thinking indicated that the terms of the RFP
15	were fair, is that correct?
16	A Can you point that passage out in my rebuttal
17	testimony?
18	Q You don't recall it?
19	A I would simply like to refresh my memory.
20	Q I think it is on Page 2, Line 17.
21	A And your question again was, please?
22	Q To your way of thinking, because a number of
23	proposals were received, you believe that that indicates that
24	the terms of the RFP were fair, is that correct?
25	A I believe what it indicates is that with the number
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353 1 of bids we got, there was not widespread viewing of this RFP as 2 being fundamentally unfair. Otherwise why would these 3 sophisticated organizations have bid into it. 4 Are you aware of the present legal limitations with 0 5 respect to the ability to construct power plants in the State 6 of Florida? 7 Α I have general knowledge of some of that, but I am 8 certainly no legal expert on that. 9 Are you aware of the Duke decision that the Florida 10 Supreme Court handed down? 11 Α Only in the broadest terms. 12 No bidder ever told you that they thought the terms 0 13 of the RFP were fair, did they? 14 I don't recall asking them that question, but to Α 15 answer your question directly, no, I don't recall any of them 16 saving this is fair. I don't recall any of them until the 17 testimony saying it was unfair, either. 18 Do you have any knowledge as to whether Duke decided 0 19 not to bid because they thought the terms of the RFP were 20 unfair? 21 Duke indicated they were going to bid to the Α No. 22 initial RFP. They did not meet the deadline. They were contacted in regard to did they still intend to bid, and they 23 24 never did. And we never heard from them in the supplemental RFP. 25

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1	Q The bidders were allowed to take exceptions to the
2	terms in the RFP, correct?
3	A Yes to virtually any term or condition other than the
4	minimum requirements to the RFP.
5	Q Did you view the RFP document as giving you the
6	ability to not consider a bid further if it had stated
7	exceptions?
8	A Can you repeat the question, please?
9	Q Sure. Did you consider the RFP to give you the
10	ability to not consider a bid further because exceptions were
11	stated to the terms of your supplemental RFP?
12	A Yes, but only to the extent that the exception would
13	be to one of the minimum requirements. Otherwise, no.
14	Q You didn't indicate anywhere in the RFP that you
15	could take exception to terms not within the minimum
16	requirements and not run the risk of being disqualified, did
17	you?
18	A The RFP contains no language that says if you take an
19	exception you may be disqualified.
20	Q All it gives bidders with respect to direction is
21	that you prefer responses with fewer exceptions as compared to
22	more, correct?
23	A Yes, which is a reasonable stance to take we felt.
24	Q And it was your understanding, was it not, that if a
25	bidder didn't take any exceptions to the RFP, that indicated
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 1 that they agreed to the terms of the RFP?

A Yes, we felt it was the obligation of the bidder that if they had a problem with any of the nonminimum requirements, terms, and conditions, to bring it up and as instructed to propose alternative language for us to consider.

Q So would you take that then as a starting point with
negotiations to go in and indicate that everything that you set
forth in the RFP was presumed to be agreed to?

9 A Yes, I think it would be a reasonable starting point 10 to go into negotiations with.

11 Q And do you think that is a fair way to proceed, to 12 basically at this point in the process when bidders are working 13 to put together data to require them, in effect, to commit to 14 every provision in your RFP unless they take exception to it?

A I'm sorry, I lost the train of your question. Couldyou repeat, please.

Q Sure. Do you think that that is fair at this point in the process when bidders are under a time constraint to prepare their response to the bid, to also ask them to go and identify every term and condition in the RFP that they may not necessarily agree to in subsequent negotiations?

A Yes, I think it is fair for a couple of reasons. Everybody was operating under the same rules and the same time constraints and the time constraints for the schedule had generally been agreed upon by the IPPs when we agreed

1 voluntarily to issue a supplemental RFP. And if they had a
2 problem with it and didn't feel it was fair, they didn't have
3 to bid.

4 Q Did you consider the response to the RFP to be the 5 start of negotiations?

6

Α

No, I personally did not.

Q And, again, I think you answered this, but the
bidders weren't told what would happen to them if they took a
number of exceptions other than that their bid would be viewed
with less favor than those that took fewer exceptions, correct?

A No, we didn't tell them what would happen because we didn't know, because we didn't know how many exceptions they would take, what they would take exception to, or what alternative language they would propose. Some we might have found innocuous, others we might have found something that we really would have a tough time living live. So until the bids came in we had no idea how we would react or could react to it.

18 Q Are you familiar with the legislative-out provision19 that was contained in the initial RFP?

20

A Yes, I recall it.

21 Q In general terms, I'm not going to hold you to the 22 language, but just describe for me what you understood that 23 provision to provide?

A Essentially that if the regulated market changed to an unregulated market, FPL could on a fairly short period of

time terminate the contract or shorten it considerably.

1

2 Q And at the time did you believe that was a fair 3 requirement to place on the bidders?

A Those individuals -- the answer is yes. Those
5 individuals at FPL who crafted that language felt that that was
6 a reasonable approach to take.

Q Do you as you sit here today, have a concern that that might be an arrangement that would be difficult to have financed?

10 A No, I don't have any concern about it whatsoever,11 because we took it out of the supplemental RFP.

12 Q But with respect to the initial RFP, if it had 13 remained in do you think that would be a term that would prove 14 problematic in financing a deal?

A I don't believe we saw evidence of that in the bids to the initial RFP. I can only recall generally a couple of exceptions that even discussed the legislative-out language. If it had been a severe problem, I would have thought every bid would have contained that on the exception page.

Q Okay. I'm going to show you a document and I ask you a couple of questions about it. I am showing you a document that has been identified as FPL Document 00104856ND and 857ND and ask if you would identify that document.

A It's a series of three e-mails from Sam Waters and to Sam Waters to and from Armando Olivera, Paul Evanson, Bill

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1	Walker and others.
2	Q And are you carbon copied on at least a portion of
3	that e-mail, the one dated 4/18/02, 6:07 p.m. from Sam Waters?
4	A Yes. What appears to be the first e-mail I was
5	copied on.
6	Q And that references some changes you all made to the
7	supplemental RFP as compared to the initial RFP, correct?
8	A It discusses changes that were being contemplated to
9	the supplemental RFP document.
10	Q Okay. The legislative-out provision that I just
11	discussed, you dropped that provision, correct?
12	A That is correct.
13	Q Let me direct your attention to the reg-out provision
14	and ask you if you would to read the two paragraphs under the
15	reg-out provision?
16	A On the second page?
17	Q Yes.
18	A The RFP specified that FPL would have the right to
19	terminate a contract if any regulatory agency, specifically the
20	PSC or FERC, disallowed any portion of the contract costs for
21	cost-recovery. This is beyond the regulatory-out provision
22	that the Commission has approved in the past. Suggested
23	remedy: Return to the old form of the regulatory-out provision
24	that states that FPL will simply not pay that portion of the
25	contract costs not allowed for cost-recovery. The bidders will

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359 1 still complain, but it is less onerous and certainly far less 2 risk than our right to cancel the contract. It is entirely 3 possible that the Commission would throw this out if they have any say in the contract design. They have rejected it in 4 5 recent standard offer contracts. 6 Do you know what is being referred to when the e-mail 0 7 says, "They have rejected it in recent standard offer 8 contracts." what is it referred to? 9 It appears to be referring to some form of a Α 10 regulatory-out provision design. 11 Do you know if the regulatory-out provision that is 0 12 contained in the supplemental RFP is similar to ones that have 13 been rejected in recent standard offer contracts? 14 No, I have no knowledge of regulatory-outs in Α 15 standard offer contracts. 16 So you don't know one way or the other, correct? Q 17 Α That is correct. 18 Page 8 of your rebuttal testimony. You talk about 0 19 weights being assigned and indicate. I believe, that 20 pre-assigning weights simply does not work and is very 21 difficult to implement. Do you recall that statement? 22 Yes. I have it in front of me. Α 23 Are you aware of RFP processes in which weights have Q 24 been assigned? 25 I participated in one that FPL issued in the early Α

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1	'90s.
2	Q Are you aware of the state procurement process, how
3	the State of Florida usually obtains products, goods, and
4	commodities?
5	A No.
6	Q So you wouldn't know whether weights are used in that
7	process one way or the other, would you?
8	A No.
9	Q You would agree that not having weights causes more
10	subjective judgments about proposals than if weights were
11	assigned to criteria, wouldn't you?
12	A Yes, it increases, I think, the subjectivity and also
13	increases the flexibility, which I think is more to the point.
14.	I think it is good to have flexibility because when bids come
15	in and you are looking at nonprice factors, unless you know
16	exactly what type of bids you have, you don't know what you are
17	evaluating ahead of time. So it is simply not possible to
18	mathematically design weights to fit a set of proposals that
19	are unknown to you beforehand.
20	Q Okay. You're saying it's very difficult to do. The
21	bid rule doesn't preclude you from trying to do it, does it?
22	A I'm sorry, the bid rule
23	Q The bid rule doesn't preclude you from trying to
24	assign some weights or at least some range of particular
25	weights when you put out an RFP?

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1	A I don't believe the bid rule gives direction one way
2	or another in regard to weights.
3	Q Okay. In your rebuttal testimony you have some
4	discussion about a letter from a Mr. Caldwell, correct?
5	A Yes.
6	Q And you are responding to a letter that Mr. Caldwell
7	sent to the Public Service Commission, is that right?
8	A Well, I am responding to it in the context that your
9	client's representative, Mr. Egan, attached it and included it
10	as part of his prefiled testimony.
11	Q Are you aware that Mr. Caldwell worked for FPL for
12	over 20 years?
13	A Until you just said it, I had no idea of the length
14	of time he had worked for FPL, so subject to check.
15	Q Okay. It's set forth in his letter. You were
16	commenting on his letter, so I was asking you if you had any
17	independent knowledge as to what he said in his letter that he
18	worked for FPL for over 20 years?
19	A That piece of information in the letter was of little
20	importance in the context I was reading it in, so
21	Q Do you know if Mr. Caldwell still has relationships
22	or contacts within Florida Power and Light?
23	A No, I do not know Mr. Caldwell, so I don't know who
24	he might still have as a friend or a contact at FPL.
25	MR. MOYLE: I'm going to pass out that letter, if I
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362 Madam Chair, I just have a few more questions, but I 1 can. 2 noticed I think I have omitted to have these exhibits that I have been handed out marked for identification purposes. If 3 you would maybe assist me if you could in that regard. 4 CHAIRMAN JABER: Sure. Since they are all e-mails, 5 6 do you have any objection to grouping the e-mails together as a 7 composite exhibit? 8 MR. MOYLE: No. 9 CHAIRMAN JABER: We will identify the two documents you passed containing e-mails as Composite Exhibit 13. Those 10 are e-mails from and to FPL employees. And then are you asking 11 12 that the letter from Mr. Caldwell be identified as an exhibit? 13 MR. MOYLE: Please. 14 CHAIRMAN JABER: That will be Exhibit 14. And that is a February 11th, 2002 letter from Michael T. Caldwell to me. 15 16 (Exhibits 13 and 14 marked for identification.) 17 BY MR. MOYLE: Let me shift gears. Page 29 of your testimony, of 18 0 your rebuttal testimony. There has been a discussion about 19 20 bids and whether the bids are binding. Let me refer you to Page 29, Line 8. You state, "So a suggestion that bids are not 21 22 binding without a contract, or even after they are committed to contract is not accurate." You're not testifying that 23 24 contracts are not binding, are you? 25 I guess it depends upon the definition you apply to Α

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1	binding. If you mean it never changes, then I would say, no, a
2	contract is not binding, because some contracts are contested
3	and are changed.
4	Q Do you know of a better way to obligate parties to
5	perform certain things than a contract?
6	A No, I don't know of a better way, but once a contract
7	is signed doesn't mean it is never changed or contested,
8	either.
9	Q With respect to the supplemental RFP, isn't it true
10	that the supplemental RFP was done in large part because of
11	FPL's failure to identify the Manatee unit in the initial RFP?
12	MR. GUYTON: Objection to the characterization as to
13	the failure to identify Manatee in the original RFP. It can be
14	stated without the prejudicial phrasing.
15	CHAIRMAN JABER: Mr. Moyle, would you like to
16	rephrase your question or do you want
17	MR. MOYLE: I will rephrase.
18	BY MR. MOYLE:
19	Q Did FPL identify the Manatee unit in its original
20	RFP?
21	A As the next planned generating unit?
22	Q Yes.
23	A No, we did not.
24	Q And because it didn't identify Manatee as the next
25	planned generating unit, wasn't that in part the reason why FPL
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- 1 conducted a supplemental RFP?
- 2

A My answer would be no, not directly.

3

Q That's fine. I don't want to hear the reason.

4 Α My understanding of why we issued a supplemental RFP 5 was that there was concern expressed that if the RFP process 6 were dragged on with lengthy appeals we might miss the time window by which we or a number of the other bidders could bring 7 8 capacity on-line to meet the 2005 need. A quick look said that if we were to go back and open up the bidding process with a 9 10 supplemental RFP and did it on an expedited basis we could perhaps clear a number of these items off the table up front, 11 12 get the process done and still have time for both FPL and for 13 most of the bidders to still get their capacity on-line for 14 2005. And we thought that was a prudent course to take, so we 15 did.

Q One more document, Mr. Sim, and I think we are done.
 CHAIRMAN JABER: Mr. Moyle, if you want this
 identified, could you please give me a short title?

MR. MOYLE: Sure. This is an e-mail with attachment from Sam Waters to Kathy Scott with Mr. Sim being carbon copied. That will be Number 15?

CHAIRMAN JABER: Yes. Hearing Exhibit 15 will be an
e-mail with attachment from Sam Waters to Kathy Scott.

24 (Exhibit 15 marked for identification.)25 BY MR. MOYLE:

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Q I am showing what you has been marked for
 identification as Exhibit 15. Could you please identify this
 document and tell me whether you have seen it before?

A Yes, I have seen it before. It appears to be a draft of a newspaper or magazine advertisement that FPL was about to put out to publicize the initial RFP issuance. That is on the first page, and the second and third pages are a draft of key messages for FPL's media relations folks to use in responding to inquiries from the media.

10QWho drafted the key messages, do you know, found on11Page 3 of the document?

12 Α My recollection is that the initial draft of this was 13 done by one of our corporate communications folks, Kathy Scott. 14 Okay. On the bottom of the first page, there is an 0 15 underlined sentence that says FPL reserves the right to reject 16 any and all bids per Paul Evanson. Do you know why Mr. Evanson 17 was wanting to specifically reserve the right to reject all 18 bids?

A No, I don't know that, but I do know that that doesappear in the RFP documents.

Q Okay. With respect to the key messages, the next page, the first bullet point, there are some words that are omitted. And it says, "FPL reiterated at a PSC workshop that the company has a need for new generating capacity and plans to meet that need by construction." That was the language that

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1	was inserted. The original language said plans to build 2,150
2	megawatts. Do you know was that Mr. Evanson's language that
3	was in that original one or Kathy Scott's, or do you know?
4	A The crossed out passage, plans to build 2,150?
5	Q Yes.
6	A I believe that was Kathy Scott's language which was a
7	carryover from a similar communication that was used to
8	announce the ten-year site plan that had come out some months
9	before in which we did announce that we were going to build
10	2,150 megawatts.
11	MR. MOYLE: Okay. Could I just have one quick
12	second? I have no further questions.
13	CHAIRMAN JABER: Thank you, Mr. Moyle. Mr.
14	McGlothlin.
15	CROSS EXAMINATION
16	BY MR. McGLOTHLIN:
17	Q Doctor Sim, Joe McGlothlin with Florida PACE.
18	A Yes, sir.
19	Q In response to one of the questions from Mr. Moyle,
20	you said that you felt it would be inappropriate to consider
21	anything that was not received in the RFP. Do you recall that
22	statement?
23	A Yes, I made a statement generally along those lines.
24	Q And the reference was to the possibility of a one
25	year 15-megawatt purchase. If I understand the response
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1	correctly, your answer was that you or FPL did not consider a
2	one year 15-megawatt purchase because you didn't want to go
3	outside the confines of the RFP, is that right?
4	A Yes.
5	Q But at the same time, isn't it true that in issuing
6	the RFP you instructed bidders not to offer a one year
7	15-megawatt purchase?
8	A That is correct.
9	Q Is that what we call a Catch-22?
10	A No, I don't think so. I mean, what we are basically
11	referring to is a shortfall of capacity in 2005 if the Manatee
12	unit was going to be built. The bidders could have bid the
13	minimum amount, as was done, a three year 50-megawatt purchase,
14	which would easily fill that need and provide a little bit of
15	cushion which might have been nice. Maybe not necessary, but
16	would have been nice.
17	Q But you said the reason you didn't consider a one
18	year 15-megawatt purchase is because nothing was offered in the
19	RFP, right?
20	A Nothing was offered in response to the RFP, that is
21	correct.
22	Q And the RFP precluded anyone from offering a one year
23	15-megawatt purchase, is that right?
24	A That is correct. But it did not prevent someone from
25	bidding a three year 50-megawatt purchase or a five year
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368 1 200-megawatt purchase and saying, oh, by the way, we are 2 bidding exactly according to the lines of the RFP, but if you 3 want this for fewer years than three or for a smaller amount of 4 megawatts, we are willing to discuss that with you. 5 Really. Would that have complied with the minimum 0 6 terms of the RFP? 7 Α Yes, because they would have submitted a bid that was 8 three years and 50 megawatts, that complies and they also would 9 have been indicating to us that if we wished to discuss 10 something out of that they were willing to discuss it with us. 11 All right. Earlier you said you did not want to go 0 12 outside the confines of the RFP, now you're saying that a 13 bidder can enlarge the RFP by simply offering? 14 I'm saying they can offer, I'm not saying whether or Α 15 not we would take it. 16 Interesting. You said earlier that you thought it 0 17 would be inappropriate to change the rules of the game. Do you 18 remember that? 19 Yes. Α 20 0 Do you regard the minimum terms and conditions of the 21 supplemental RFP to be part of the rules of the game? 22 Α Yes. 23 0 I have a series of questions that relate to the 24 modeling that was done in conjunction with the evaluation of 25 the self-build options and the proposals that were submitted. FLORIDA PUBLIC SERVICE COMMISSION

And would you agree that at least one objective of the modeling
 exercise is to quantify and then compare the production costs
 associated with folding any of the proposals including the
 self-build option into the FPL system?

5

6

A Production cost is certainly a component that one considers in evaluating options.

Q Would you also agree that in this exercise of
quantifying and estimating production costs, a modeler attempts
to replicate and express mathematically the way the system
actually operates and incurs costs in operating?

11 12 A What was the last part of your question, please?Q And incurs costs when operating?

A I would agree to the extent feasible with the
constraints of the modeling exercise you are in, yes.

Q Would you agree that the closer the modeler comes to being able to faithfully replicate the way the system incurs costs while operating the more precise or the more accurate the estimate of costs will be?

A I would agree that -- if I understand your question correctly, the more precise you are the more accurate the modeling results are, but that does not necessarily translate into a more meaningful analysis if what you are becoming more accurate with is a relatively small differential between options.

25

Q Well, my question goes to the objective of accuracy

1 and precision. If one has the objective of accuracy and 2 precision, do you agree with me that the way to get greater 3 accuracy and precision is to conform the modeling as closely as 4 possible to the way the real system actually operates and 5 incurs costs?

A All else equal, yes, I would agree. But I also would
state that if you are trying to chase greater accuracy for
something that has relatively little value in making a
decision, it is basically wasted motion.

10 Q In performing the comparisons and in modeling the 11 impact of the proposals on the system, you employed the EGEAS 12 computer program, is that correct?

13

A Yes, that is correct.

14 Q Would you agree with me that considering the actual 15 physical system and the way it operates, that the generating 16 unit's output fluctuates up or down within the operable range 17 in an effort to maintain economic dispatch?

18

19

A Within certain constraints, yes.

Q What constraints do you have in mind?

A Perhaps environmental constraints, engineering
constraints on particular types of units, et cetera.

Q Now, when you employed EGEAS to model the impact of the proposals on the system, is it true that you modeled the FPL units as either being completely -- their capacity being completely in the system or completely out, sort of all or

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1	none?
2	A Yes. The same with the outside proposals.
3	Q Okay. Is that described as single segment modeling?
4	A I'm not familiar with that term.
5	Q Okay. May we use this single segment description to
6	identify the practice of including all or none of the unit in
7	the model for purposes of our conversation?
8	A Again, I'm not familiar with that term.
9	Q Is it true that EGEAS is capable of treating those
10	units in multiple segments rather than a single segment?
11	A Yes, I do believe it has that capability.
12	Q Would you agree that treating units as available in
13	several segments rather than one segment is closer to the real
14	system than the choice of using all or none?
15	A Well, again, I'm not familiar with the definition you
16	have in mind of segments, but we asked in the outside proposal
17	bids and for the FPL units to have the units broken out into
18	what I call operational modes, a base operational mode, a duct
19	firing mode, and a peak firing mode. Some of the bids went
20	further and had power augmentation operational modes thrown in.
21	And to the extent that the bids and the FPL units provided heat
22	rates and capacities for those operational modes, we modeled
23	those linked together but as separate units.
24	Q I am speaking now of the FPL existing units, which as
25	I understand it you chose to model all or none, is that

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1	correct?
2	A Yes.
3	Q EGEAS has the capability of enabling you to model
4	those in several segments rather than all or none to represent
5	partial capacity as opposed to full capacity, correct?
6	A I'm not sure. It has been a number of years since I
7	ran the EGEAS model, so I can't answer that question
8	definitively.
9	Q Assume for the moment that EGEAS has that capability.
10	Would you agree that modeling the units as available in either
11	partial or full capacity is closer to the way the real system
12	works than modeling them as all or none?
13	A It may be.
14	Q Is there any doubt in your mind?
15	A Depending upon how you would break them out you might
16	not match exactly how the units were dispatched, but in general
17	I would agree with you.
18	Q Would you agree the actual physical system commits
19	and decommits generating units based on economic criteria?
20	A At least in part, yes.
21	Q Do you have in mind the constraints that you
22	mentioned earlier?
23	A Constraint such as environment constraints,
24	transmission constraints, et cetera.
25	Q Is it true that EGEAS has no capability of
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identifying which units will be committed or decommitted 1 2 because that type of logic is not incorporated in the model? Again, it has been too long since I ran the model to 3 Α 4 be able to answer that with confidence. 5 Would you agree that one would more closely replicate 0 6 reality, physical reality if one used a model that had the 7 ability to commit and decommit units mathematically in the same 8 way they are committed in the real system? 9 I would agree it would better approximate reality, Α 10 whether it would provide more meaningful results is another 11 issue. 12 Do you agree with me that looking at, again, the real 0 13 physical system, units start and stop based upon economic 14 criteria? That the operator of the system starts and stops units based upon economic criteria? 15 16 Yes, at least in part on economic criteria. Α And if you know, is it true that EGEAS has no start 17 0 18 or stop logic built into the program? 19 Α Let me answer your question -- I think a two-part answer. I believe the version of the model that we have does 20 not have that capability, whether more recent versions of the 21 22 model have that capability, I don't know. You seem to be asking the question of the EGEAS model of which there are many 23 24 versions, and I am a bit hesitant to try to answer a question for all of the versions of the model that either have existed 25

374 1 or exist today. 2 Well, let me clarify, all of these questions go to 0 3 the EGEAS model that you employed in these comparisons. 4 Thank you, that helps. Α 5 And if I understand your answer correctly. that 0 6 version of the EGEAS does not have the start/stop logic? 7 I believe that is correct. Α 8 Would you agree that again, in the real physical 0 9 world, seasonal variations have an impact on the output of 10 units? 11 Α Some units more than others, yes. 12 0 If one had the objective of as much precision as 13 possible, would you agree that it would be appropriate to 14 incorporate those impacts of seasonal variations within the 15 modeling that is done? 16 If that was your sole objective, yes. If you had a Α 17 number of objectives such as what you are trading off to get 18 more precision in something that may not have a great deal of 19 value in differentiating between two options and a trade-off in 20 the amount of time it would take you to calculate, my answer 21 would be different. 22 Q When employing your version of EGEAS, did you model the impact of seasonal variations on the output of the units? 23 24 Α What was the last part of the question, please? 25 0 When you used EGEAS to model the impact of these

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1	proposals, did you model the impact of seasonal variations on
2	unit output?
3	A No. We thought that it was of relatively little
4	importance, given the fact that virtually all of the bids we
5	had and the FPL self-build units were essentially the same type
6	of unit with essentially identical heat rates.
7	Q Most of the units were combined cycle units, is that
8	correct?
9	A Meaning the outside proposals?
10	Q Yes.
11	A Yes, that is correct.
12	Q And I think you mentioned earlier that there were
13	variations among the bidders with respect to whether they did
14	or did not include such things as duct firing, am I correct?
15	A Yes.
16	Q Would the impact of seasonal variations be different
17	with respect to a combined cycle unit that has duct firing and
18	has employed that mode as opposed to one that has no duct
19	firing?
20	A It probably would.
21	Q I have some questions on the subject of the treatment
22	of variable O&M within the modeling that was done. Again,
23	looking at the real physical system, is it true that units are
24	dispatched based upon the variable operating costs primarily?
25	A Yes, absent any constraints, transmission,

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1	environmental or otherwise, you dispatch on economics, the
2	variable cost.
3	Q And the variable operating costs are the principle
4	component of what is called the dispatch price, is that
5	correct?
6	A Can you repeat, please.
7	Q Yes. The variable operating costs comprise what is
8	termed the dispatch price, which is the criterion that the
9	operator employs in determining which units to dispatch to meet
10	the load?
11	A If you are saying the dispatch cost is the variable
12	cost, yes, I would agree.
13	Q And that would include variable O&M, would it not?
14	A Fuel and variable O&M would generally make up your
15	variable cost or your dispatch cost.
16	Q What components of operation or maintenance expense
17	vary with different levels of output?
18	A I think that is a question that would be better asked
19	of Mr. Yeager.
20	Q One aspect of the comparison of proposals, self-build
21	and others, is to identify the impact on overall system cost,
22	is it not?
23	A Yes.
24	Q And in that regard, to the extent a particular
25	proposal is dispatched more frequently than another, that more
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1	frequent dispatch would show up in overall lower revenue
2	requirements, would that be correct?
3	A All else equal and they were dispatched solely on
4	economics, yes.
5	Q So in that regard, a low dispatch cost relative to
6	other proposals is an advantage, is it not?
7	A All else equal, the lower the unit's dispatch cost,
8	the more frequently it will be dispatched, yes.
9	Q And in the same vein, since variable O&M is a portion
10	of the dispatch price, a lower O&M, a lower variable O&M
11	relative to other proposals would be an advantage?
12	A Not necessarily. What we saw, Commissioners, in the
13	outside proposals was a very wide range of variable O&M costs
14	ranging from anything from approximately 22 cents per megawatt
15	hour to \$6.50 per megawatt hour. And while we did not go back
16	and ask the bidders why they structured their proposal the way
17	that they did, it certainly seemed to us that they had
18	different objectives. Some wanted their payments to be made
19	more on a fixed cost stream in the fixed payments, others
20	wanted it more on an variable stream. So if someone wanted
21	their payments in a particular category of fixed or variable,
22	we think they would have structured their variable O&M cost
23	accordingly.
24	Q My question relates to the impact of a particular
25	proposal on overall system costs resulting from the place that

1 a proposal would occupy in the hierarchy of dispatch, economic 2 dispatch by virtue of its dispatch cost. In that regard, is it 3 true that the lower variable O&M would be an advantage in that 4 it would contribute to a dispatch cost that may be lower than 5 others?

A I would agree if you are willing to throw out the
fact that obviously a number of the outside bidders wanted a
high variable 0&M cost and had an objective for whatever reason
to have that in there. They viewed that as an advantage
clearly because they structured their bid that way.

11 Q You mentioned that the bidders' variable O&M ranged 12 from about -- I thought it was 24 cents earlier, but you have 13 used the figure of 22 cents today. Do you know which is 14 correct?

A 22 cents. I think in my rebuttal testimony I said
less than or about 25 cents per megawatt hour.

Q Ranking up to several dollars per megawatt hour? A Ranking up to just under, I think it was \$6.47 per megawatt hour.

20 Q What value for variable O&M did FPL assign to its 21 self-build units?

A Approximately four cents per megawatt hour. And we published that in the supplemental RFP in Table 6, and it was revealed extensively in our initial RFP filing and discussed at least once in the supplemental Q and A website in response to

379 1 questions that were asked. So that number was certainly revealed to all of the bidders well ahead of the time the bids 2 3 were due. 4 All other things being equal, would the four cents 0 5 per megawatt hour contribute to a lower dispatch price than 6 would the values used by the bidders? 7 All else equal. certainly it would. Α 8 All other things being equal, would that translate 0 9 into a lower revenue requirement? 10 All else equal, yes, it would. Α 11 Q We talked about the EGEAS model and the way you 12 employed it. Florida Power and Light Company uses other 13 computer programs for various purposes, does it not? 14 Α That is correct. And in particular, Florida Power and Light uses a 15 Q 16 program called PROSYM, is that correct? 17 POWERSYM. Α 18 Q Is PROSYM a more nearly pure production costing 19 simulation model than is EGEAS? 20 Α I said POWERSYM. 21 Thank you, I didn't catch that. The same guestion 0 22 for POWERSYM? 23 I'm sorry, would you repeat the end of the question, Α 24 please? 25 Q Yes. Relative to EGEAS, would you agree that FLORIDA PUBLIC SERVICE COMMISSION

380 POWERSYM is a more pure form of production costing simulation 1 2 model? 3 I don't know that I would use the word pure. It is Α 4 more detailed, that I would agree with. 5 All right. If one were to approach a comparison with 0 the objective of as much precision and accuracy as possible in 6 quantifying production costs, would one use POWERSYM or EGEAS? 7 If all I was interested in was production costs and 8 Α all else equal, I would probably go with POWERSYM. But that 9 10 was not the case in the RFP. 11 For what purposes does the company use POWERSYM in Q 12 its business? It uses it for fuel cost clause filings. 13 Α Does POWERSYM have the unit commit logic? 14 Q 15 Α I don't know. I don't run POWERSYM. 16 0 I see. Do you know whether it has the start/stop 17 logic? No, I don't. Again, I don't run the model. 18 Α 19 0 It would have been possible, would it not, Doctor Sim, for FPL to have used EGEAS as a first cut, identified the 20 top six or eight proposals resulting from EGEAS, and then 21 22 running those through the hourly production costing model, 23 POWERSYM, to refine the results? 24 I would answer yes, it would be possible, but I would Α 25 answer in our opinion it was unnecessary.

1 Q I will give you a chance to tell me why you think it 2 was unnecessary?

3 I will be glad to. Commissioners, let me use an Α example, the All-FPL plan and the plan number three that was 4 \$83 million more expensive. That plan consisted of the Manatee 5 unit in 2005. the 50 megawatt Power Corp purchase in 2005, and 6 7 one of the El Paso units in 2006. Now, in regard to the 8 question I was asked, would it have been possible to run 9 POWERSYM for those two cases, that plan and the All-FPL plan and see if the answer changed, well, let's see where we start. 10 We start with a net present value differential of \$83 million, 11 and that equates to approximately \$250 million nominal. 12 Now 13 let's consider what a production costing model does. It won't 14 change your capacity cost, it won't change your transmission 15 integration cost. it won't change your firm gas transportation cost, it won't change your fixed O&M. The only thing it will 16 change is your fuel cost. 17

Now, if you look at those two plans spread out as an expansion plan across the gamut and figure what is going to be affected by it, in both cases you are going have the existing FPL system in both, so the changes you are going to see are going to wash out between the two if you go from EGEAS to a production costing model and run them through.

Likewise, in both cases you have got the Manatee unit in both plans. It is going to wash out when you switch from

one production costing model to the other. Those two plans had identical filler unit plans, seven combined cycles following and the exact same years between them. Those are going to wash out. What you are left with is a 50-megawatt purchase in 2005, and in 2006 an El Paso unit in the more expensive plan versus the Martin unit in 2005.

7 Those are the only two variables that are going to 8 change. Your fuel forecast hasn't changed, you are not 9 changing the heat rates of the unit. And bear in mind that you 10 have got a \$250 million nominal cost difference. If you look 11 at the Martin unit and you look at the El Paso unit, the El 12 Paso unit is starting with a worse heat rate than is the Martin 13 unit. How you are going to make the answer change and get a 14 \$250 million reversal in cost by going to a different 15 production costing model when you have got one heat rate worse 16 than the other kind of defies description to me.

17 We looked at it, we did not think it was a reasonable 18 approach to take. The gap between the plans was just too big. 19 All of the units we were looking at were combined cycle units. 20 The heat rates were all sitting virtually on top of each other. 21 And in looking at the bids it wasn't the heat rate differential 22 in the proposals that made the difference, it was the capacity 23 costs. Where we saw heat rate changes from one proposal to 24 another of at most a couple of percentage points, we saw the 25 capacity cost range on a factor of over three in some cases.

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1	That is what drove the difference in the plans, not the heat
2	rates and not the production costs.
3	So would it have been possible to do it? Yes. Would
4	it have provided an answer that would have changed a \$250
5	million nominal differential? In my opinion, no.
6	Q For clarification, the \$250 million increment, is
7	that based on EGEAS alone or is that including such things as
8	the equity penalty?
9	A The \$83 million is based on total costs, which
10	include the equity penalty, and I translated that into a \$250
11	million nominal.
12	Q And how much of that was the equity penalty?
13	A In that plan, 81 million.
14	Q 81 million of the total of what?
15	A 81 out of 83.
16	Q You understand in this case that the appropriateness
17	of the equity penalty is very much in dispute, do you not?
18	A Not in FPL's it's not.
19	Q I understand. But you understand that there is more
20	than FPL involved here and it is very much in dispute?
21	A I understand that some people are disputing it, yes.
22	CHAIRMAN JABER: Commissioner Palecki, you had a
23	question?
24	COMMISSIONER PALECKI: Yes, I had a question. Just
25	if you could clarify for me, you mentioned in the scenario you
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just outlined a 50-megawatt Florida Power Corporation purchase.
 Could you explain that, and was that necessary because the El
 Paso unit would go on-line a year later?

THE WITNESS: I think the answer is yes indirectly,
but let me try to clarify.

COMMISSIONER PALECKI: Thank you.

6

7 THE WITNESS: Florida Power Corp submitted a couple 8 of proposals for 50 megawatts starting in 2005, one for three 9 years and one for five years, I believe. The El Paso purchases were presented to us with a start date of 2006. So, one of the 10 11 plans that the computer model put together was a FPL Manatee 12 unit of 1,107 megawatts in 2005. It combined the 50-megawatt 13 purchase from Power Corp in 2005 to get us over the 14 1,122-megawatt reserve margin requirement and then tacked on 15 the end of it in 2006 the El Paso bid, thereby creating an 16 expansion plan that met our reserve margin requirements for 17 both years.

18 COMMISSIONER PALECKI: I thought the deficit was 19 15-megawatts, why a 50-megawatt purchase?

THE WITNESS: The deficit is 15, but the bid was for 50, so the computer can only work with the discreet amounts that were bid. And it found one of the most cost-effective solutions was to combine the 50-megawatt Florida Power Corp bid with the Manatee unit to meet the 2005 need, and then sought other proposals to meet the 2006 need.

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1	COMMISSIONER PALECKI: I guess the question I have is
2	isn't a 50-megawatt purchase when you only need 15 megawatts,
3	would that in and of itself make the scenario not
4	cost-effective? Would it take it out of the range of being one
5	of the more cost-effective alternatives?
6	THE WITNESS: My answer is kind of yes and no. I
7	mean, if it had been exactly 15 megawatts would it have been
8	lower cost with nothing else changed, I think the answer is
9	yes. But, relatively speaking a three year 50-megawatt
10	purchase is not a lot of money relative to other options we saw
11	out there.
12	COMMISSIONER PALECKI: Thank you.
13	BY MR. McGLOTHLIN:
14	Q Doctor Sim, I want to return to the example that you
15	used in your explanation of why you weren't interested in using
16	a POWERSYM refinement. You said in that example that the total
17	difference was \$83 million, but you also said that the equity
18	penalty was 81 million of that. Do I understand correctly that
19	with respect to the production cost component the total
20	difference in the two proposals was \$2 million?
21	A No.
22	Q Why is that not the case?
23	A Because you are assuming that the remaining
24	difference is made up solely of production cost. You are
25	forget that there are capacity costs, there are fixed O&M
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386 costs, there are transmission integration costs. 1 2 All right. Looking at those groups of costs, the 0 total difference was \$2 million. correct? 3 4 Α That is correct. And is this a 30-year analysis? 5 0 6 Α Yes. So on the one hand -- let me ask another guestion. 7 0 8 Is it true that the EGEAS model looks at production costs on an 9 annual basis? 10 Α Yes. 11 So it looks once a year for 30 years, correct? 0 12 Yes. Α On the other hand, is it true that POWERSYM examines 13 0 14 economic criteria on an hourly basis? Again, I don't run POWERSYM, I can't answer your 15 Α 16 question. 17 Are you familiar with the fact that there exists 0 18 production cost simulation models that examine criteria on an 19 hourly basis, an hourly production cost simulation model? 20 Α I believe that would be the case, yes. 21 And by definition such a model would examine criteria 0 22 more detailed than EGEAS on an hourly basis for the same 23 30-year period, correct? It would examine it in more detail over 30 years, 24 Α 25 yes. It would also take a significant amount more computing FLORIDA PUBLIC SERVICE COMMISSION

time I would imagine if you are doing 30 years hourly
 calculations.

Q Okay. Well, let's leave the computing time aside for the purpose of this question. Don't you think there is a likelihood or at least a possibility that on an 30-year comparison in which one program lacks detail and takes an annual look on the one hand and the other has the detailed logic and takes an hourly look on the other, you could find possibly \$2 million of swing?

A I would agree that you could probably find \$2 million
 of swing, but I'm not sure how much value I would put in it.
 Q Because of the equity penalty?

13 No. Let me finish my statement, please. Anytime you Α 14 are dealing with a 30-year analysis, you are dealing with 15 long-range forecasts. I think you have some degree of 16 uncertainty with a 30-year fuel forecast. I think you are 17 going to have a greater degree uncertainty if you have a 18 30-year hourly calculation based on those fuel forecasts. 19 Therefore, you may think you are getting greater precision, but 20 I think that precision is a false perception.

Q Don't you use the same fuel forecast in either event?
A We used the same fuel forecast, but we are not trying
to calculate hourly costs for 30 years in EGEAS.

24 Q I think awhile ago you indicated that FPL uses the 25 more detailed POWERSYM for purposes of its fuel forecast for

fuel recovery proceedings, is that correct? 1 2 That is correct. Α 3 Why don't you use EGEAS? 0 4 Because what we are looking for are very short-term Α 5 fuel cost-recovery filings, in which case the greater precision 6 of POWERSYM makes sense. 7 Is it your testimony that a program having greater 0 detail and more highly developed logic loses precision when 8 9 used over time rather than gains precision? 10 Α Could you repeat the question, please, Mr.

11 McGlothlin?

12 Let me try again. You stated a moment ago that it is 0 13 your view that the value of a detailed hourly production 14 costing simulation program loses that value when employed in a 15 longer term view. Did I understand that correctly?

16 Let me try to state it again. I think if you feel Α 17 you are getting more value and more precision going from annual 18 calculations over 30 years by switching that to hourly, I think 19 you have got a false perception.

20

0 And tell me why?

21 Simply because forecasts the further out they go are Α 22 less certain, and if you are trying to force more precision 23 into it by moving from a general calculation, I will call it, 24 to a more detailed calculation, I don't think you can put any 25 more stock in that more detailed calculation.

Q But with respect to each hour of each period of time examined, the hourly production costing simulation model would more closely represent the physical system than would EGEAS, isn't that correct?

5 A Not necessarily, because the system may change over 6 30 years from what your opinion of it is today.

Q Well, with respect to that, though, in either event
whether you use EGEAS or POWERSYM, you are making certain
assumptions about how the future is going to look, are you not?

10 A Yes, but I'm not making assumptions on an annual 11 model that are as detailed as you do in an hourly production 12 costing model, therefore, I'm not trying to what I will call 13 fool myself that I am gaining greater precision and greater 14 value by using it over a long-term forecast.

Q I want to ask you some questions about the
assumptions assigned, the performance assumptions assigned to
FPL's proposed self-build options.

18 CHAIRMAN JABER: Mr. McGlothlin. I think this is probably a good time to interrupt you. I don't want to rush 19 20 you, but how much longer do you anticipate for this witness? 21 MR. McGLOTHLIN: Ten or 15 minutes. 22 CHAIRMAN JABER: Mr. Perry, will you have guestions? 23 MR. PERRY: I don't plan on having any questions. 24 CHAIRMAN JABER: Mr. Twomey, do you anticipate having 25 questions?

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1	MR. TWOMEY: Probably 10 or 15 minutes.
2	CHAIRMAN JABER: Commissioners, if it is okay with
3	you, I would like to finish this witness before we adjourn for
4	the evening.
5	MS. BROWN: Madam Chairman, we have some questions
6	for this witness, too.
7	CHAIRMAN JABER: Yes, I heard you say that with the
8	last witness.
9	MR. McGLOTHLIN: I need to add to that answer. I
10	just remembered that Doctor Sim was identified as one of the
11	people to talk about Exhibit 9, and I will have to add that to
12	whatever I said.
13	CHAIRMAN JABER: Right. Go ahead, Mr. McGlothlin.
14	BY MR. McGLOTHLIN:
15	Q With respect to Manatee 3 and Martin 8, is it true
16	that FPL assigned a forced outage rate of one percent for each
17	of those units?
18	A I'm sorry, sir, I couldn't hear the end of your
19	question.
20	Q What assumption for a forced outage rate did you
21	assign to Manatee 3 and Martin 8?
22	A In the modeling we assigned different forced outage
23	rates for the different operational modes. We assigned a 3
24	percent forced outage rate for the base operational mode, a 3
25	percent forced outage for the duct firing mode, and a 99
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1	percent forced outage rate for the peak firing mode.
2	Q As you are using the term today, when you say a 3
3	percent forced outage rate, does that include both planned and
4	unplanned outages?
5	A It includes total outage.
6	Q What outage rate did you assume for an unplanned
7	outage?
8	A We rolled all of the both planned and unplanned
9	outage and modeled them as forced outage rates.
10	Q Yes, but do you know what you rolled into that 3
11	percent?
12	A Off the top of my head, no, I don't. However, I
13	believe that that information is found in one of the appendices
14	in the need study. Which one off the top of my head, I don't
15	recall.
16	Q My information is that is one percent, does that
17	sound right?
18	A It is certainly in the ballpark.
19	Q To your knowledge, has FPL offered to commit to the
20	use of the one percent for surveillance and ratemaking
21	purposes?
22	A I'm sorry, submit to the use of?
23	Q Yes. Would FPL agree to be bound by or commit to
24	this one percent assumption?
25	A I don't have an answer for that. I wouldn't be the
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1	one making that commitment on behalf of the company.
2	Q The heat rate assigned to the Manatee and Martin 8
3	units is 6,850?
4	A For the base operational mode, that is correct.
5	Q And that is identified by FPL as well, what is the
6	opposite of clean? I'm looking for the word here.
7	A I think the terminology we used and that was used in
8	the initial negotiations with the El Paso bid was an average
9	heat rate. And in FPL's terms we refer to it as the average
10	heat rate between the time you would bring a unit back in from
11	a major outage or major overhaul and the time you take it out
12	for a major overhaul.
13	Q So it assumes some degree of degradation after being
14	new?
15	A Yes.
16	Q I will ask you the same question. If you know, would
17	FPL be willing to accept the use of this 6,850 for ratemaking
18	purposes?
19	A Again, I can't commit to that. I would not be the
20	appropriate person.
21	Q Is it true that these assigned heat rates were lower
22	than the heat rate assigned to the greenfield filler unit that
23	was used in comparing proposals of varying lengths?
24	A The answer is kind of yes and no. Let me try to
25	explain. In modeling we used a composite heat rate, which was
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a megawatt weighted heat rate of 7,021, I believe, subject to check for the greenfield unit, the filler unit. However, that was calculated based on the starting point of 6,850.

4 Q I will have to confess I didn't understand your 5 answer. Would you try me again?

6 Let me try it again, then. We had for the Manatee Α 7 and Martin units for three operational modes we had separate 8 heat rates for each one of them. They were subject to check 9 for the base operational mode 6,850, for the duct firing mode 10 about 8,770, and for the peak firing about 5,660. When you 11 take those and you average them by the megawatt weighting of 12 the operational mode, you come out with something about 7,020. 13 So, therefore, we created an average composite heat rate for 14 the filler unit that we used but it was based on the exact same 15 heat rates that we used for the Martin and Manatee units. And 16 the reason why we applied it that way for the greenfield unit 17 is to allow more outside proposals to be evaluated in each 18 computer run we did by taking up one instead three option slots 19 in the EGEAS calculation.

Q You mentioned this in passing energy in an earlier answer. As I understand it with respect to both Manatee 3 and Martin 8 you modeled each of those units as though they were in three pieces, am I correct?

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A That is correct, as separate units but linked.Q One piece represented the peak operating mode, is

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1	that correct?	
2	A That is correct.	
3	Q And there is another piece of the unit represen	ted in
4	the form of duct firing mode?	
5	A Correct.	
6	Q And then there is the every day base portion of	it
7	that acts like a normal CC?	
8	A There is a base operational mode, yes.	
9	Q And each of those assigned its individual incre	mental
10	heat rate for purposes of figuring out where it is going	to
11	appear in the hierarchy of economic dispatch?	
12	A That is correct.	
13	Q And this peak operation mode was assigned a hea	t rate
14	of 5,600, correct?	
15	A That is approximately correct. Excuse me, the	duct
16	firing or peak firing?	
17	Q Peak firing.	
18	A The peak firing was 5,600, 5,660, I don't recal	1 the
19	exact number, but it is very close to that.	
20	Q And the base portion was in the range of 8,000?	
21	A No, the base operational mode was 6,850.	
22	Q 6,850, I beg your pardon. So as you modeled ea	ch of
23	these units well, we have now gotten six units. With	
24	respect to Manatee 3 and Martin 8, each of which was brok	en
25	down in three pieces, as you modeled the way EGEAS would	
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1 dispatch those, the portion having the lowest heat rate, that 2 being the peak firing portion, would be dispatched first, is 3 that correct?

4 It would be dispatched first on economics, but Α because we gave it essentially an availability of one percent, 5 it only operated a very, very small number of hours in a year. 6 And let me just point out, Commissioners, that we modeled all 7 8 of the outside proposals in exactly the same way if the 9 proposals provided us a base operational mode, a duct firing 10 mode, or a peak firing mode. So there is no difference between 11 the FPL unit modeling and the outside proposal modeling in that 12 respect.

13 Q Were there any outside proposals who offered peak 14 firing?

A I don't recall any. I know there was at least one that had a power augmentation mode, there were a number that had duct firing, but I don't recall off the top of my head any with peak firing.

Q And if that is correct, then, FPL's units were the only ones that were dispatched in this fashion. Understanding that there is very limited availability of this portion of the unit, the peak operating model would be dispatched first in the hierarchy of the three pieces of the unit?

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A Of the three pieces of the unit, yes.

Q But isn't it true that it would be impossible for

1 this peak firing mode to take place unless the full unit were 2 on-line and operating?

A Yes, and that was accounted for in the model. That if you pick one of these operational modes, you have to pick all of them and dispatch all of them according to the economics.

Q I'm trying to square that with the earlier answer8 which said that the peak firing mode was dispatched first.

9 A Well, let me try to clarify. I'm not sure I can say 10 it was dispatched first. It was dispatched up to its one 11 percent availability limit, so it was dispatched that much per 12 year.

Q And when it was dispatched, in terms of how the model operated, depending on circumstances would it have been possible within the parameters of the model to dispatch the peak firing mode and not dispatch the base load?

A Yes, whether it was an FPL unit or an outside proposal it would have been possible if you had had the kind of bizarre situation, for example, where the base operational mode had a 20,000 heat rate, it might never have been dispatched.

Q Why would it necessarily be 20,000? I mean, the base portion of the FPL unit is 6,850, substantially above by the 5,600 of the peak firing mode. Based upon the discrepancy there wouldn't it be possible to dispatch the peak firing mode and because of the conditions of the system seen by the model

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1	not dispatch the base firing mode?
2	CHAIRMAN JABER: Mr. McGlothlin I'm sorry, go
3	ahead and respond. Go ahead, respond.
4	THE WITNESS: I have lost my train of thought.
5	CHAIRMAN JABER: I am so sorry. I'm starting to shut
6	down, so we are going to have to end for the evening because I
7	will not be any good for you beyond this point. So, here is
8	what we will do. We are going to adjourn for the evening, and
9	pick up right here at 8:30 tomorrow morning. And tomorrow
10	morning we are going to do a real good job picking up more
11	witnesses, but all I know is two witnesses a day is completely
12	unacceptable. See you tomorrow morning.
13	(The hearing adjourned at 7:05 p.m.)
14	(Transcript continues in sequence with Volume 4.)
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1	STATE OF FLORIDA)
2	: CERTIFICATE OF REPORTER
3	COUNTY OF LEON)
4	I JANE FAURAT RDP Chief Office of Hearing Poportor
5	I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing proceeding was
6	heard at the time and place herein stated.
7	IT IS FURTHER CERTIFIED that I stenographically
8	reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said
9	proceedings.
10	I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative
11	attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in
12	the action.
13	DATED THIS 3rd day of October, 2002.
14 15	Mh e trut
15 16	JANE FAUROI, RPR Chief Office of Hearing Perpenter Services
10	Chief, Office of Hearing Reporter Services FPSC Division of Commission Clerk and Administrative Services
18	(850) 413-6732
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