

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of : DOCKET NO. 941101-EQ

Petition for determination that :
plan for curtailing purchases :
from qualifying facilities in :
minimum load conditions is :
consistent with Rule 25-17.066, :
F.A.C., by FLORIDA POWER :
CORPORATION. :

THIRD DAY - MORNING SESSION

VOLUME 6

Pages 741 through 875

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN SUSAN F. CLARK
COMMISSIONER J. TERRY DEASON
COMMISSIONER JULIA F. JOHNSON
COMMISSIONER DIANE K. KIESLING
COMMISSIONER JOE GARCIA

DATE: Wednesday, May 10, 1995

TIME: Commenced at 8:30 a.m.

PLACE: FPSC Hearing Room 106
Fletcher Building
101 East Gaines Street
Tallahassee, Florida

REPORTED BY: JOY KELLY, CSR, RPR
Chief, Bureau of Reporting
Official Commission Reporter

APPEARANCES:

(As heretofore noted.)

DOCUMENT NO. DATE

FLORIDA PUBLIC SERVICE COMMISSION 04947 MAY 23 88

FPSC-BUREAU OF REPORTING

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P R O C E E D I N G S

(Hearing reconvened at 8:40 a.m.)

(Transcript continues in sequence from Volume 5.)

CHAIRMAN CLARK: We'll call the hearing back to order. Mr. Sasso.

MR. SASSO: Thank you. Chairman Clark, we would like to begin by moving to strike Mr. Slater's exhibit, KJS-10 and his testimony relating to it.

Mr. Slater has done exactly what Mr. McGlothlin faulted Ms. Brousseau for doing. And either Mr. Slater's rebuttal is proper rebuttal to Ms. Brousseau's in which event he never should have been given leave to do this, because Ms. Brousseau should have been the last word. Since we're the petitioning party, we should have had rebuttal and that should have ended it. Or if Ms. Brousseau's rebuttal was improper, then so is Mr. Slater's and it should be stricken for that reason.

I recognize that may require a little explanation and I'm happy to do that.

Let me begin by making clear that what we're talking about here is that part of Mr. Slater's analysis and Ms. Brousseau's analysis that concerns unit commit simulations. We have calculated negative avoided cost manually with respect to the events of curtailment, but we've also included an unit commit simulation about these events.

1 And in our direct case we included an unit commit simulation
2 pertaining to each of the seven events.

3 What Mr. Slater then did in his response to that was
4 to change certain assumptions, and run new runs, and get
5 different results. What Ms. Brousseau did in her rebuttal was
6 to say, "Well, if you're going to make refinements to our
7 initial runs, you haven't gone far enough. We need to make
8 some additional refinements." And she made those refinements,
9 changed some other assumptions and did some new runs and
10 reaffirmed her initial conclusions.

11 What Mr. Slater has now done is he's made yet
12 additional changes, introduced new assumptions and he's
13 displayed them on KJS-10 in the far right-hand column. You
14 can compare the middle column with the far right-hand column,
15 and you'll see he has introduced new changes into these
16 computer simulations and he's gotten different results.

17 No, again, these are computer simulations. They do
18 not accurately, completely, fully represent actual real world
19 events, especially the change case are by definition
20 hypotheses of alternative scenarios. And so we could go on
21 ad infinitum, changing new assumptions and getting new runs.
22 And Mr. Slater has done exactly what Ms. Brousseau has done.

23 Now, we can demonstrate today, if need be, that
24 Mr. Slater's changes are not legitimate, but we don't believe
25 we need to do that because, again, either what he has done is

1 fair rebuttal, in which event so is Ms. Brousseau's analysis
2 or it's not fair rebuttal, in which event it ought to be
3 stricken.

4 CHAIRMAN CLARK: Mr. McGlothlin.

5 MR. MCGLOTHLIN: First of all, I think the
6 references to other approaches like manual calculations and
7 some comments about how simulations may or may not depict
8 reality are arguing other portions of the case and don't
9 belong as part of this motion.

10 Secondly, I think it's a reargument on something
11 that you ruled on yesterday.

12 But very briefly, the argument is not well-founded
13 for several reasons. First of all, the nature of the
14 simulation is to take a representation of what actually
15 happened when the utility curtailed and supplied -- meet the
16 load with its own generation and compared that to what would
17 have happened had there been no curtailment. And both
18 witnesses have started with a base case which is what actually
19 happen. And to make the comparison of whether or not they are
20 positive or negative avoided costs they do a change case,
21 which is what would the system have done in the event QFs
22 continue to deliver energy?

23 Mr. Slater said yesterday that with respect to the
24 most recent simulations he did not touch the base case, so his
25 starting point was the same as the starting point for FPC's

1 witness. The question becomes a debate over what is the
2 appropriate change case to evaluate. That's what he did the
3 first time around; that's what he's done the second time
4 around after FPC moved the target and gave him a different
5 starting point to work with.

6 We said yesterday during argument that he had been
7 at his computer arriving at what his conclusions, evaluations
8 and alternatives would be. So the Commission was very aware
9 of that when it ruled yesterday he would have that
10 opportunity.

11 CHAIRMAN CLARK: Mr. Sasso.

12 MR. SASSO: Yes. At the time that the Commission
13 made the ruling that Mr. Slater should be given leave to rebut
14 Ms. Brousseau's testimony, we did not have the benefit of
15 KJS-10. We had no idea what Mr. Slater had done. It was
16 represented that Mr. Slater was going to rebut Ms. Brousseau's
17 supplemental testimony. And, instead, what he has done is
18 exactly what Ms. Brousseau is faulted for doing: He changed
19 the change case.

20 CHAIRMAN CLARK: Then you are admitting that the
21 testimony you filed for Ms. Brousseau was inappropriate
22 rebuttal.

23 MR. SASSO: No, I'm not admitting it. I'm saying
24 that if it was appropriate rebuttal, then he never should have
25 been given leave to do this additional work. And if it was

1 inappropriate, then what he has done is inappropriate and
2 we've got to draw the line somewhere.

3 And this is another critical fact. Counsel made
4 much ado yesterday, or whenever we had this motion and this
5 discussion, about the fact that Ms. Brousseau went beyond some
6 matters that Mr. Slater had focused on in his analysis, and
7 that we had introduced six new additional changes. Well,
8 Mr. Slater hasn't even addressed those with the exception of
9 one, which is the deration of certain units. His change cases
10 deal only with that one of the six additional changes and his
11 other changes don't concern Ms. Brousseau's additional work.
12 So, he has even attempted to rebut those changes. He hasn't
13 introduced new changes to his change cases.

14 MR. MCGLOTHLIN: Which is precisely why the argument
15 has no merit, because both witnesses started at the same
16 starting point. They both are saying, "Here is the base case,
17 now, what is the alternative?" And Ms. Brousseau gives one
18 alternative. He has now had the opportunity to say this is
19 wrong and here is why.

20 CHAIRMAN CLARK: Thank you, Mr. McGlothlin. The
21 Motion to Strike is denied.

22 Go ahead, Mr. Sasso.

23 MR. SASSO: Thank you.

24

25

1
2 KENNETH JOHN SLATER

3 resumed the stand as a witness on behalf of Orlando CoGen,
4 Limited, L.P. and Pasco Cogen, Limited, and, having been duly
5 sworn, testified as follows:

6 CONTINUED CROSS EXAMINATION

7 BY MR. SASSO:

8 Q Now, Mr. Slater, let's continue our discussion about
9 your work in this case and deal with this issue of unit
10 commitment.

11 You would agree that when we're talking about unit
12 commitment we're talking about a computer simulation; is that
13 right?

14 A Yes, we are.

15 Q And in the real world utility units have starts and
16 fits and uneven operation that may not be fully captured or
17 represented in unit commit; is that right?

18 A That's correct, and they may have these starts and
19 stops and little hiccups in both the base case and the change
20 case.

21 Q And it's difficult to capture all of these in a
22 computer simulation; is that fair?

23 A One doesn't capture all of these in a computer
24 simulation.

25 Q And, in fact, in your work you have made some manual

1 adjustments to force units on to maintenance in order to get
2 certain results that you wanted in the simulations; is that
3 right?

4 A No, that's not what I did.

5 In setting up one of these simulations, the first
6 step is to create a data set, which one believes represents
7 reality for the base case. And in this second set of runs, I
8 have taken Ms. Brousseau's word for the fact that she has
9 closely as possible represented the reality in the base case.

10 Then the procedure was to ask Unit Commit, the
11 program, to generate a change case based upon the base case
12 and adding back in the curtailed QF generation.

13 Now, you can leave it up to the program to make the
14 choices about what could happen in the change case or you
15 could look at the results and decide that that's not what you
16 should do in the change case. There are better alternatives.
17 And all you have to do is instruct the program that I don't
18 want to do that; I want to do that.

19 Q Right. And, for example, if you decided in looking
20 at the outcome of that computer run that it would make better
21 economic sense, for example, to have one particular unit off,
22 the way you would accomplish that in the computer simulation
23 you might put that unit on maintenance, right?

24 A Yes. That's a means within that program of deciding
25 that you want that unit off.

1 Q And that is --

2 A It's been used by FPC in their base cases to say,
3 "Well, this unit we did take off, so here is when we took it
4 off and do it with a maintenance card, shall we say, in the
5 input, to say, "All right. We had it off for these hours."
6 You can do the same thing in the change case if you decide
7 that it makes more economic sense to have Unit X off instead
8 of Unit Y.

9 Q So there are limitations in the fields in this
10 program and sometimes we have to make some artificial
11 assumptions to get a result that we want; is that correct?

12 A I wouldn't call them artificial assumptions; I would
13 just call them directions to the program.

14 Q Well, as a example, when you want to take that unit
15 off line it's really not undergoing maintenance, but you're
16 just telling the computer to assume that; is that right?

17 A We're just telling the computer, "I want it off for
18 these hours."

19 Q And the way you do that is you tell the computer
20 that the unit is on maintenance, so it will respond by taking
21 it off; is that right?

22 A No, the instructions to the program, they go in on a
23 record that has MSCD at the tail end of it. The computer
24 doesn't know that that thing is supposed to be on maintenance
25 or supposed to be just undergoing some -- what would you call

1 it, hot standby, whatever, or just optional economic shutdown.
2 The computer program doesn't know the difference. It just
3 knows that you've told it, "I want that unit off."

4 Q Okay. And in your assessment of these change cases,
5 you would exercise some judgment about what you thought made
6 more sense and you would instruct the computer accordingly; is
7 that right? Yes. You have to understand that this unit
8 commit program is an old program. It is not the latest
9 development in unit commitment software. It was developed
10 long ago, and I don't think it's a very good program. It
11 makes faulty strategic decisions, particularly regarding
12 shutdowns. The direction of the logic in this program appears
13 to be more aimed at the right start-ups, rather than the right
14 shutdowns.

15 Q So there is a need to use operator judgment in
16 actually using this program for the system?

17 A There is a need to use some judgment.

18 Q And you use some judgment in constructing your
19 change cases?

20 A Yes.

21 Q And you would assume, naturally, that Florida Power
22 used some judgment in exercising its change cases?

23 A I don't know what Florida Power did to create the
24 change cases. What I see in the input data is just letting
25 the program decide. I didn't see directions to the program to

1 say do this or do that, which I think you'll see if you
2 examine the data that I have put in that I have deliberately
3 told the program, "I want this unit off, not that one."

4 COMMISSIONER DEASON: Let me interrupt for just a
5 second.

6 MR. SASSO: Sure.

7 COMMISSIONER DEASON: How did you know what to tell
8 the computer to assume or to do to determine what you
9 considered to be the optimal avoided cost scenario? Was it
10 trial and error or did you just -- were you smarter than the
11 computer, or was it just experience, or was it -- how did you
12 do it?

13 WITNESS SLATER: Well, several ways. One way is
14 that I have been involved in this type of analysis, you know,
15 power system economics, for a long, long time. I'm very used
16 to this type of stuff. I've written programs like this; a
17 couple of them. I've also written the PROMOD program that you
18 probably know of through your work with the utilities. I'm
19 very well versed in this stuff.

20 And through running the program, I was able to see
21 some of the things the program did and get an idea of the type
22 of logic that was built into Commit, so that I could pick
23 where it might make a wrong decision. And then just judgment,
24 you know, experience of how these things should work and what
25 could be a valid alternative and a better alternative.

1 COMMISSIONER DEASON: Okay.

2 WITNESS SLATER: In other words, I can do better
3 than the program.

4 COMMISSIONER DEASON: You did better than the
5 program.

6 WITNESS SLATER: Yes.

7 COMMISSIONER DEASON: You manipulated the program to
8 -- now I don't want to use the term in a negative sense -- you
9 modified the program or directed the program to assume certain
10 things to where it would show that there were actually
11 positive avoided costs with your changed scenario, correct?

12 WITNESS SLATER: Well, I didn't like some of the
13 shutdown strategies that the program indulged in. Therefore,
14 I substituted what I thought were better shutdown strategies,
15 and they turned out to generate positive avoided costs.

16 COMMISSIONER DEASON: Well, the decisions to curtail
17 QFs or to cycle off baseload units, all of that has to be done
18 by an operator in the real world, real time, decisions have to
19 be made and sometimes it takes judgment. I assume that you
20 have to use computer simulations to an extent, but at some
21 point a real person making a real decision has to make that
22 decision.

23 And I guess the problem I'm having is that we can
24 sit here and we can analyze six scenarios. And we can go back
25 and forth and say, "what if, what if, what if." And maybe

1 your "what if" continues to show more positive benefits and
2 the Company's "what if" showed there were negative impacts, my
3 concern is how do we instruct, or how do we get a real person
4 operator to make a reasonably informed decision, and then live
5 with it?

6 We're second-guessing a decision that was made. And
7 I don't know how many hours it took you to run this, but
8 obviously the person making that decision is not going to have
9 the benefit of your expertise and the benefit of your trial
10 and error runs to determine what is the optimal decision to
11 make.

12 WITNESS SLATER: Well, some of these I arrived at
13 the strategy in 30 minutes as to what was the right thing to
14 do.

15 COMMISSIONER DEASON: Well, I thought you said you
16 had been working on this for hours, trying to get your
17 testimony filed, and that you could not provide this to
18 Florida Power until yesterday because you had just finished it
19 And, in fact, one scenario you had not yet finished.

20 WITNESS SLATER: No.

21 COMMISSIONER DEASON: Okay. Please explain to me
22 that, then. Please explain this entire exhibit and how you
23 derived it.

24 WITNESS SLATER: Okay. I started working on this
25 exhibit, on these runs, on Sunday, about 11:00 in the morning.

1 And we provided this to Florida Power yesterday. Now, in that
2 time I had to unpack Florida Power's runs and study those runs
3 to see what changes had been made in the base cases.

4 Most of my time was spent understanding what the
5 base case was, what all of the input data to the program
6 meant. When you get a stack of inputs that say that the
7 output or the maximum generation on this particular unit has
8 this hourly profile, and you get about eight or ten different
9 numbers and the maximum output on this other unit is this, you
10 have to look at that and study that and see what it means.
11 Most of the time was spent understanding the base cases;
12 having a look back through the logs of the curtailment events
13 to see that the input data looked like what happened in the
14 curtailment events, lining that up. And then I was able to
15 move on to say, "All right. I now understand the situation in
16 the base case."

17 Now, if I was the operator on shift at Florida
18 Power, I would understand the base case because it's my
19 system. I'm sitting there, I'm running the system; I
20 understand what my base case is. I don't have to read a
21 computer input and mull over that and fret about that to find
22 out what is in there, what it's saying about the base case.
23 That was most of the time.

24 Then once one understands the base case, one can
25 say, "All right. Let's have a look at the change case and are

1 there some alternatives?"

2 Now, just so you understand the last case that I
3 haven't finished yet, it has a particular problem. The
4 particular problem there is that the generation on Crystal
5 River 1 was reduce to a very low level; 73 megawatts. And
6 down at that level you can only have one coal pulverizer on,
7 and you worry about flame stability in the unit, so you run
8 oil. You put in the start-up oil torches and feed oil into
9 the boiler so that you maintain flame stability.

10 Now, you're burning oil when you're doing that. And
11 I came across a note in one of the logs of that curtailment
12 event that they were burning 1,000 gallons of light oil an
13 hour to keep that unit on at these low load levels. And I
14 haven't worked out yet how to factor that into the input of
15 the computer program, the fact that there's oil being consumed
16 in the base case that wouldn't be consumed in the change case.
17 So that's really why I haven't finished.

18 COMMISSIONER DEASON: Okay. Let's put aside that
19 one, then, and let's look at the other six.

20 WITNESS SLATER: Uh-huh.

21 COMMISSIONER DEASON: Is it your testimony that an
22 operator who would know his or her system should have been
23 able, within the time frames that these decisions had to be
24 made, that that person should have made the decisions which
25 you calculated to be the optimal decision to make?

1 WITNESS SLATER: I don't know whether what I have
2 put down is the optimal decision. What I do know is that they
3 were better decisions than the program automatically made.

4 COMMISSIONER DEASON: Okay. Is it your testimony,
5 then, that an operator should have made decisions more
6 consistent with your recommendations, and that person should
7 have made those decisions within the time frame he or she had
8 to make those decisions?

9 WITNESS SLATER: Yes, except what we're dealing with
10 here is that's the change case. That's not the base case.
11 The actual operation is what was replicated in the input data.
12 That was the actual operation. These are suppositions that
13 Florida Power, according to the testimony, did not do. These
14 change cases were not run in the control center.

15 The operators were told, I do believe, "curtail,"
16 without an analysis of this sort. I believe that's what --

17 COMMISSIONER DEASON: I guess that's the nature of
18 my question. You're saying that the operator -- the decision
19 should not have been to curtail the QFs.

20 WITNESS SLATER: Right. But no analysis was done to
21 determine negative or positive avoided costs prior to the
22 event. That analysis wasn't done.

23 COMMISSIONER DEASON: That's precisely my question.
24 You're saying that an analysis of this type should be done.

25 WITNESS SLATER: Yes.

1 COMMISSIONER DEASON: And that it can be done within
2 the critical time frames, and that it's your opinion that the
3 positive avoided cost would have resulted with the correct
4 decision having been made by the operator.

5 WITNESS SLATER: Yes.

6 Q (By Mr. Sasso) Just to be clear on what work we're
7 talking about and over what time frame, the change cases
8 included in KJS-10 are not the same change cases you used in
9 your initial supplemental testimony; is that right?

10 A Certainly not, because the base case was nowhere
11 near the same base case that I was dealing with in my
12 supplemental testimony.

13 Q Okay. And the base case is what actually happened;
14 is that right?

15 A That's right. It's a description within the model
16 of what actually happened.

17 Q And then you made some adjustments to the base case
18 in your supplemental testimony from what Florida Power showed
19 in its base cases?

20 A The only changes I made to the base case in any of
21 the runs for the supplemental testimony was to make the base
22 and change cases compatible.

23 For example, if there was no start-up fuel for a
24 unit in base case but there was in a change case, I'd put it
25 in the base case. If there was a discrepancy between the

1 minimum capacity of the University of Florida unit between the
2 base and change case, I made them the same. And I tried to
3 make them the same in the sense that what I was doing was
4 conservative.

5 So one choice I do make that Ms. Brousseau said was
6 the wrong choice was I tried out both ways and chose the one
7 that was the most conservative to my analysis.

8 Q Okay. And you also removed "must run status" from
9 certain base cases, didn't you?

10 A In the ones that had excess generation. I was under
11 the impression that the whole objective of curtailment was to
12 remove the excesses. And yet we had base cases that had
13 excess generation, and the only way of dealing with it was to
14 get rid of it.

15 Q Okay. And you assumed excess generation without
16 taking into account whether or not there were economy sales
17 made.

18 A There was no information provided with those base
19 cases that said that there was anything else about the base
20 case apart from what was represented. It wasn't represented
21 that this wasn't the reality. It was represented that it was
22 reality.

23 Q Just to be clear, then, about the amount of effort
24 that has gone into these computer simulations, to be fair,
25 we'd have to take into account all the work that Ms. Brousseau

1 has done and all the work that you have done throughout the
2 course of this proceeding; is that right? I mean, to take
3 into account all of the work that's been done on these
4 computer simulations after the fact?

5 A As I just explained to Mr. Deason, if it was my
6 system, and I knew the status of my system, and I was
7 representing the status of my system in a computer program, I
8 would understand what that base case was. And running a few
9 change cases, even if I did some trial and error, wouldn't
10 take more than a couple of hours.

11 Q And that's an important point, isn't it Mr. Slater,
12 that these change cases as you've indicated are hypothetical
13 constructs that you have created on KJS-10, is that right?

14 A Yes, they are, but all I'm doing is testing for
15 positive or negative avoided costs.

16 Q And you're doing that by hypothesizing that certain
17 units might be on and certain units might be off and certain
18 units might be cycled on and off; is that correct?

19 A No, that's not -- there's a set of -- what I have
20 done here in these change cases is I have rigorously left the
21 base case alone. In other words, that's reality, and we have
22 been assured that this is as close to reality as is reasonable
23 to represent here. Then all one is doing is trying
24 alternative change cases.

25 Q Okay. And what we're talking about is had there not

1 been curtailment, how would Florida Power Corporation have
2 operated its system economically?

3 A Yes, and there are a number of options for that.

4 Q Exactly. And you've exercised your judgment to
5 select certain of those options.

6 A Yes.

7 Q And in the real world, when an operator on Florida
8 Power's system is sitting there in the control room deciding
9 whether to curtail or not to curtail, certain judgments are
10 being made about what can be done in the real world in terms
11 of running units and not running units; is that correct?

12 A Yes, certain judgments are being made and those
13 judgments I don't believe were made in FPC's change case --
14 cases.

15 Q You're talking about the computer simulation?

16 A Yes.

17 Q You're not talking about what happened in the
18 control room?

19 A The change case is not a real case. The base case
20 is the real case, and those were the decisions that were made
21 at the time. But there's an obligation to establish before
22 curtailment that there would be negative avoided costs. And
23 Florida Power was operating under the assumption, according to
24 the testimony we read, that any shutdown was automatically
25 negative avoided cost. Any shutdown of a coal-fired unit was

1 automatically negative avoided costs. Well, I think these
2 simulations show quite clearly that that is not the case.

3 Q Okay. Now, you made certain assumptions about --
4 in the change case, you made certain assumptions about when a
5 certain unit could be run and when it might be taken off; is
6 that right?

7 A Yes, the same as the program in FPC's change cases
8 made certain assumptions about units coming off and going on.

9 Q And you used your expertise to make those
10 assumptions; is that right?

11 A I used my expertise to make alternative assumptions
12 than the program made using the same set of rules that were
13 built into the data under which the program was making the
14 choices, and the same set of rules that were carried on in the
15 base case.

16 Q Okay. Now, you would agree that in the control
17 room, the operator is going to have to use his expertise to
18 make judgments about whether, "If we don't curtail, can we run
19 this unit or take some other unit off line?"

20 A The operator and the operator's supervisors, as is
21 evidenced by the logs that were kept of the curtailment
22 events, are going to decide what's the best set of resources
23 to run.

24 Q And they are going to take into account what they
25 know about their system; is that right?

1 A That's correct.

2 Q And that's going to include reliability constraints?

3 A It's going to include a whole host of constraints.

4 Q It's going to include their knowledge about the
5 capabilities of the performance of their units?

6 A Yes.

7 Q Okay. And, for example, unit commit assumes that
8 when an unit is taken off it comes right back on in five or
9 six hours; is that right?

10 A There's a piece of data that you put in the input
11 which is the minimum shutdown time for that unit.

12 Q Okay.

13 A And if it's put into the input that it's six hours,
14 that is apparently a reasoned piece of data that's in there.
15 If it's not six hours, you change it.

16 Q And it's very possible that Florida Power chose a
17 conservative assumption in order to make can these
18 conservative; isn't it?

19 A These runs, as I understand it, the data sets here
20 are the data sets which are used for the billing process to
21 establish the -- I don't want to get into another matter which
22 is a pricing issue -- but these runs are used to determine
23 when the avoided unit would be run and not run, and also
24 they're used to determine the as-available energy cost. This
25 is the data that is used for those purposes. And if people

1 are getting paid on this basis, one would expect that this is
2 pretty good data.

3 Q In doing your analysis about how Florida Power would
4 operate its system but for curtailment, did you take into
5 account the information that was provided to your clients in
6 discovery indicating that these coal units don't come back on
7 in five or six hours more than half the time?

8 A Well, if that's the case then it should be
9 represented in the input that way and should be used in the
10 as-available energy calculations on which these people are
11 paid.

12 Q And in unit commit do you agree that there is just
13 one field for a ramp rate, you can only enter one value?

14 A Yeah, one value on a run, yes.

15 Q But in the real world that's not the way units run?

16 A No, it's not quite the way units run, but the data
17 set is there for you to make your best approximations of what
18 is happening. And the same thing is happening in base case
19 and change case. So if there's an advantage to the unit being
20 able to rise a little more rapidly in the base case, it can do
21 so in the change case.

22 Q And unit commit may show that we should load a coal
23 unit all the way up for economic reasons, but in the real
24 world we may want to leave that down for load control
25 purposes?

1 A That happens in the runs. I can pull out the runs
2 here for you and show you Crystal River 5 operating at 650
3 megawatts instead of the economic value of 750 because there's
4 got to be that, you know, regulating room and spinning reserve
5 provided on the system.

6 Q And that's an important constraint, load control?

7 A And it's in the program.

8 Q But would you agree that the program doesn't fully
9 capture it?

10 A I don't know. You can put a value into the program
11 to represent what is needed on the system. If the value isn't
12 big enough, make it bigger. That's what the input is for.

13 Q And I think we are in agreement that we use unit
14 commit basically as a starting point for dispatch decisions;
15 is that right?

16 A How good a starting point it is depends how good
17 your data set is.

18 Q And how good the program is?

19 A And how good the program is.

20 Q And you think it's kind of a rusty outdated tool?

21 A As I described to Mr. McGlothlin one day, the code
22 is old and cranky, and it is.

23 Q And so it's real important to take into account
24 operator judgment and knowledge of the system?

25 A Yes. Always. With or without a program.

1 Q All right. Now, let's talk about your work in
2 KJS-10 specifically.

3 And I'd like to begin with the first curtailment
4 event that occurred on October 19, 1994.

5 Now, in your change case, on October 19, 1994, you
6 agree that you cycled CR-4 off for six hours; is that right?

7 A Yes.

8 Q Okay. Now, have you reviewed our curtailment plan?

9 A Pieces of it.

10 Q And did you take into account Mr. Southwick's
11 testimony in doing your work?

12 A What, that CR-4 was the unit that was used for
13 certain functions?

14 Q Yes.

15 A Yes.

16 Q It's used for load control?

17 A Yes.

18 Q CR-4 and CR-5 are used for load control, you
19 understand that?

20 A Yes.

21 Q Okay. Did you take into account that in cycling
22 CR-4 off you were taking out one of the units used for load
23 control?

24 A Yes.

25 Q And did you take into account that in cycling CR-4

1 off on that day you were leaving Florida Power's system in
2 jeopardy to the tune of 1,550 megawatts that were in peril
3 that day?

4 A Would you please explain that question?

5 Q Okay. Did you review the curtailment summary
6 contained in the exhibits to Mr. Harper's testimony when you
7 did your work?

8 A No.

9 Q Okay. So you did not take into account the notation
10 in the curtailment summary in CJH-1 that CR-1 and CR-2 that
11 day had a designated firm minimum load in order to avoid
12 tripping?

13 A CR-1 and CR-2?

14 Q Yes.

15 A There was a designated minimum load fed into the
16 program.

17 Q And that was because of a concern about the
18 possibility those units might trip that day; is that right?

19 A I don't know that.

20 Q Okay. And you didn't take into account then the
21 notation in that curtailment summary that the Anclote unit
22 that day was demonstrating turbine vibration problems and was,
23 therefore, designated as an unit that could not cycle off?

24 A I think you're talking about -- that was taken note
25 of.

1 Q You did take note of that?

2 A Of course.

3 Q Okay. And did you take note of the fact that the
4 Bartow 2 unit was designated as an unit that could not cycle
5 off because the 2B generator breaker was at risk of failure?

6 A Yes, that was taken note of and taken care of. The
7 minimums on Crystal River 1 and 2 were respected.

8 Q Okay.

9 A In the runs.

10 Q Now, CR-1, CR-2, Anclote and Bartow 2 that day
11 accounted for 1,550 megawatts of generating capacity, would
12 you agree?

13 A I'll take your word for that. That sounds about
14 right.

15 Q And would you also agree that system operators might
16 be justifiably concerned about having 1,550 megawatts of
17 generating capacity at risk that day?

18 A I don't think I would have been horribly concerned
19 given the great stack of other generating capacity that I had
20 available for service.

21 Q Would you agree that they ought to prudently take
22 into account those conditions in deciding whether to cycle off
23 a baseload coal unit?

24 A They had taken their precautions on two of the units
25 that they had problems with, the Anclote unit and the Bartow

1 unit and they said, "We're not going to shut these down."

2 Q Could you answer my question, please?

3 A I don't believe -- I'll answer your question. I
4 don't think the cycling off of a baseload unit has got
5 anything to do with the problems on the other units.

6 Q You don't agree that if Florida Power has four units
7 at risk of tripping off, which account for 1,550 megawatts of
8 capacity, that they shouldn't take that into account in
9 deciding whether to cycle off a coal unit?

10 A No. There was plenty of other generation available
11 to the operators on Florida Power's system at a higher cost
12 but plenty of generation available.

13 Q Would you agree that a system operator at Florida
14 Power may make a different judgment based on his experience
15 and knowledge of his system?

16 A He might, but I think under the circumstances here
17 you have a low load situation. You have a low load situation
18 in utilities surrounding you. You have more generation than
19 you quite know what to do with. The loss of a unit, taking a
20 unit out of service, or a unit tripping off even, is going to
21 be amply covered by all of the reserve that is on line. This
22 is not the situation where the utilities have all of their
23 generation in service trying to meet a load that they are
24 worried about, and then you do something on the system that
25 might lose you some generation and cause you to not serve your

1 load. This is not a situation like that. This is the
2 opposite situation. You have more generation than you know
3 what to do with.

4 Q You might change your opinion, then, if you knew
5 that the system was in a position where it had anticipated a
6 sharp increase in load the next day?

7 A Still from a low level. Plenty of generating
8 capacity around to serve the load.

9 Q Did you take into account the fact that Mr. Harper's
10 exhibit showed that Florida Power was forecasting a load of
11 4,200 megawatts the very next day?

12 A Yes, and there was plenty of capacity to meet that.

13 Q Let's look at January 2nd. Would you agree with me
14 that January 2nd and January 7th were the two days that
15 involved the deepest curtailments of all of these events?

16 A From memory I do believe so.

17 Q The second involved a curtailment of 264 megawatts;
18 is that right?

19 A Do you want me to check that or --

20 Q Will you accept my representation?

21 A Hang on. January the 2nd?

22 Q Yes.

23 A 267 was the deepest, yeah.

24 Q And what about January 7th?

25 A January the 7th. It looks about 273, is that what

1 you said?

2 Q Well, I didn't say, but I have 282. But let's
3 assume it's in that range.

4 A I've got 382 minus 109.

5 Q But these were the two most significant
6 curtailments; is that right?

7 A Yes.

8 Q And would you agree that when you're in a situation
9 involving the deepest curtailments that is going to pose the
10 greatest challenge to the utility in the absence of
11 curtailments in meeting all of its feasibility and reliability
12 constraints?

13 A The larger the curtailment perhaps the -- or the
14 larger the potential excess generation situation, the more
15 arrangements have to be made.

16 Q And the closer you come to a true system emergency.

17 A If you didn't do something about it, you may well
18 have a emergency.

19 Q And doing something about it in working with your
20 own system, if you don't have the option of curtailing is
21 going to pose the greatest challenge in terms of whether you
22 can cycle off needed units; is that correct?

23 A The challenge is cycling off the right units.

24 Q Now, in your change case you'll agree that you had
25 only three units on line on both those days, CR-1, CR-3 and

1 CR-5?

2 A Is your question after I had cycled off what I was
3 cycling off?

4 Q Yes.

5 A I had cycled off -- Crystal River 2 was already out
6 of service and I cycled off Crystal River 4.

7 Q And you left on only CR-1, CR-3 and CR-5?

8 A Yes. I cycled off the same CR-4 unit that FPC's
9 change case took off for the whole day. I took it off for six
10 hours.

11 Q And these units that were left on line were
12 operating at or near their minimums; is that right?

13 A They were operating at or near their minimums, yes.

14 Q Okay. And do you appreciate --

15 A Their minimums set for -- still providing the
16 regulating room and the spinning reserve and all the rest of
17 it, not their absolute rock bottom physical minimums.

18 Q Well, let's talk about that. CR-4 was not on line;
19 is that right?

20 A That's right. I took it off.

21 Q You took it off.

22 A For six hours and then put it straight back.

23 Q And CR-4 is one of the units that's needed for load
24 control on AGC?

25 A Yes.

1 Q And that left CR-5 as an AGC unit; is that right?

2 A That's right.

3 Q And on the second, for example, you had CR-5
4 operating at 313 megawatts; is that right?

5 A That's right.

6 Q And Mr. Southwick's testimony and our curtailment
7 plan indicates that for load control purposes CR-4 and CR-5
8 need to be operating at 300 megawatts; is that right? Both of
9 them together?

10 A At least at 300.

11 Q At least.

12 A They shouldn't be just sitting there at 300
13 megawatts. They should be operating at 300 or more megawatts.

14 Q Right, in order to be able to come down as well as
15 go up to follow load?

16 A Yes. Now, at 330 megawatts on Crystal River 5
17 there's 163 megawatts of down room available immediately to it
18 without even doing anything extraordinary.

19 Q Now, you would agree with the proposition that a
20 utility ought to plan for contingencies, adverse contingencies
21 on its system?

22 A Yes.

23 Q And you would agree that if CR-3 had tripped off
24 that would put Florida Power Corporation in a bad way that day
25 on January 2nd to cover that contingency?

1 A Oh, I think any day that Crystal River 3 would trip
2 off would cause a significant problem for FPC operations that
3 they would have to do something to take care of. And if
4 Crystal River 3 tripped off, I could see the operators
5 immediately starting Crystal River 2 that they had available
6 to start, and perhaps even starting an Anclote or Bartow unit
7 to cover it, whatever they could get up quickly, I'm sure.

8 But as far as replacing the lost generation is
9 concerned if we are in a minimum load situation, then there's
10 lots of spare capability around the place, there's hundreds of
11 megawatts available to FPC from the Southern Company
12 contracts; pretty readily available stuff.

13 Q Would you agree that it takes eight to ten hours to
14 restart Crystal River 2 once it's been off?

15 A The numbers that are used in the program and used
16 for billing rate construction purposes to pay the QFs is six
17 hours.

18 Q Now, on this load control issue, again, would you
19 agree that you can't maintain load control all the way down to
20 the minimum of the operating levels of a particular unit?

21 A Well, load control means you have to be able to move
22 up and down. And if you're right down on your lowest limit,
23 you don't have any down room left. You have to be off that
24 bottom level.

25 Q And for that reason you couldn't take CR-5, for

1 example, down to 150 and have any load control?

2 A That's right. And if we look at the January --
3 let's look and say the -- just pick out an incident for you.

4 The October 19th incident, in the base case, Crystal
5 River 4 was reduced to as low as 149 megawatts. In other
6 words, all of its capability to perform load control was
7 removed in the base case when it got down to 149 megawatts and
8 also 12 megawatts was trimmed off Crystal River 5, so it was
9 operating at 288 megawatts with only 138 megawatts left of
10 regulating room, so the regulation capability of CR-4 wasn't
11 there anyway because the unit was operating below its 300
12 megawatt limit for quite a number of hours.

13 Q And on that day Anclote and Bartow were on, were
14 they not?

15 A Anclote and Bartow were on.

16 Q And they provided some load control?

17 A They could provide some load control. And all I did
18 in my change case was cycle off CR-4 for six hours.

19 Q And the curtailment plan ordinarily would require
20 that Anclote and Bartow be cycled off; is that right?

21 A It would normally require that, but on that day
22 their minimums contributed to the overgeneration situation,
23 and the University of Florida's unit also contributed to the
24 overgeneration situation by all being on.

25 Q And they were kept on for reliability reasons; is

1 that right?

2 A They were kept on for reasons that there was
3 something wrong with each one of those units; that if it was
4 taken off it may cause a problem for that unit. But there
5 were lots of other units that were around. I don't know that
6 that was, strictly speaking, a real problem in that the system
7 would have gone without needed generation if one or the other
8 of those units hadn't been able to come back without a little
9 bit of maintenance being done on it.

10 Q All right. Now let's talk about January 8th. On
11 January 8th you manually made CR-5 go down to 288 megawatts;
12 is that right?

13 A To 288 megawatts in hour two, and to 265 megawatts
14 in hour three.

15 Q You forced CR-5 to go down to those levels manually;
16 is that right?

17 A Yes. And I got the extent of being able to take it
18 down to, say, 265 from the fact that in the base cases you
19 find a number of references to CR-5 being taken down to that
20 sort of level and lower. I didn't do anything adventurous
21 there. I just did the same sort of thing that FPC was doing
22 in its base cases.

23 Q Of course, you didn't know what circumstances
24 existed on those days that entered into the operators exercise
25 of judgment and discretion in operating these units?

1 A I thought of that when I was doing -- I thought of
2 that precise thing when I was doing this down to 265, but I
3 took great solace in the fact that Ms. Brousseau said that you
4 don't have to match it precisely, and, you know, 30 megawatts
5 is within the rules. And she seemed to exercise that rule
6 quite often in the base cases. My change case is in just as
7 good or better shape than most of these base cases.

8 Q Now, yesterday in your summary you testified that
9 Florida Power was in error in keeping derations in its change
10 cases, didn't you?

11 A Yes. There were certain derations there. For
12 example, let me pick one out.

13 In the runs that were done for January 1, for
14 example, there was specified maximums put into the base case
15 to control the output of Crystal River 4 and 5, to reduce them
16 below their 300 megawatt minimum.

17 Now, those directions to the program were left in in
18 the change case; they weren't removed and this resulted in the
19 situation in, say, hour four where you had Crystal River 4
20 pegged down at this minimum of -- this low minimum of 257, and
21 Crystal River 5 pegged down at this low minimum of 270. And
22 the only way of making up the generation on the system was to
23 go and buy 46 from Southern Company, which is not what the
24 operators would have been doing. They would have been
25 operating Crystal River 4 and 5 higher because there was

1 nothing wrong -- nothing to prevent them operating higher, and
2 they wouldn't have been buying from Southern Company. So
3 these minimums, the only way of imposing a lower minimum on a
4 unit that you really want to keep with a minimum of 300 is to
5 give it a maximum less than the minimum. If you fail to
6 remove that maximum in the change case, you have pegged the
7 generation of that unit at that value in the change case when
8 there's no reason for doing so.

9 Q And that's what you did on January 8th with CR-5?

10 A I needed -- I had 35 megawatts of excess generation.
11 The easiest way to get rid of it, and the way that Florida
12 Power had gotten rid of it in a number of their base cases,
13 was to operate for a hour or two on Crystal River 5 at a value
14 less than its 300 megawatt minimum. I did precisely the same
15 thing.

16 Q Now, you would concede that it's important to have
17 voltage and VAR support for Florida Power's 500 kilowatt
18 transmission grid?

19 A Voltage support, megawatt support, yes.

20 Q And did you take into account Mr. Harper's testimony
21 that as a rule CR-5 ought to be operated between 300 and 350
22 megawatts for reliability reasons?

23 A As a rule, yes. And if that rule can be broken for
24 a hour or two in normal operation, as Florida Power did in its
25 base cases, then it can be broken for an hour or two by

1 similar amounts or lower amounts in the change cases.

2 Q But, again, you don't know what judgments the
3 operators made in those base cases.

4 A No, but I have the base cases as guides on each one
5 of those incidents.

6 Q Now, you would agree that if you hadn't taken CR-5
7 down to 288 megawatts, Unit Commit likely would have turned
8 off and later restarted another unit.

9 A If I'd have let it, or I could have let it produce
10 35 megawatts of excess generation, the same as it was doing in
11 the base case. The base case had it -- hang on. If you look
12 at, say, the 14th, January the 14th, you'll see that the base
13 case has got excess generation. Same rules.

14 Q You had a reason for taking CR-5 down to 288; didn't
15 you?

16 A To balance generation and load.

17 Q To balance generation and load.

18 A Yes.

19 Q And to get positive avoided cost?

20 A Well, on that same day Florida Power had taken CR-5
21 down to 298 and CR-1 down to 115. Just nipping a few
22 megawatts here and there to balance generation and load.

23 Q Now, you did this on a trial and error basis until
24 you got positive avoided costs, right?

25 A No. I decided that the best balance between

1 generation and load would be achieved with the commitment
2 schedule that I gave to the program, and then I saw that this
3 resulted in 35 megawatts of excess. And the most practical
4 way to deal with that, according to what FPC was doing in its
5 base cases, was simply to temporarily take a few megawatts off
6 the minimum of Crystal River 5.

7 Q Well, to put it another way, you derated Crystal
8 River 5 until Unit Commit did not cycle off another unit?

9 A No. I set it up so that it wouldn't cycle off the
10 unit.

11 Q Okay.

12 A And had to look what my excess was, and said, "All
13 right. I will take that excess off of Crystal River 5. I
14 didn't run and run and run -- I decided what the unit commit
15 schedule could be as a good change case, and then took the
16 excess off Crystal River 5, just the same as Florida Power did
17 in its base cases and in practice.

18 Q Now, let's took the January 14th, 1995?

19 A Yes.

20 Q Now, in our change case we cycled off CR-1 and CR-2;
21 is that right?

22 A Yes.

23 Q And you didn't, correct?

24 A No. Instead of cycling off CR-2 and then later CR-1,
25 I cycled off CR-4.

1 Q The day before?

2 A Well, CR-2 was cycled off the day before in your
3 change case.

4 Q Okay. But you took CR-4 off the day before?

5 A Yes. I decided that the better change case, and the
6 shutdown which best matched the situation was to have CR-4 off
7 rather than CR-1 and CR-2.

8 Q Okay. And you conducted an analysis of costs for a
9 three-day period; is that right?

10 A Yes.

11 Q You conducted a three-day run according to your
12 exhibit; is that right?

13 A Well, the database that was supplied to me for that
14 period was for the 13th, 14th, and 15th.

15 Q Okay. And the fact is, you didn't turn back on CR-4
16 during that three-day period, did you?

17 A No. And the FPC change case didn't turn back on
18 CR-2, either.

19 Q So you didn't capture the cycling costs of CR-4 in
20 your change case?

21 A I did exactly what FPC did in its change case, and
22 the case ended.

23 Q Well, if we had included the cycling costs in our
24 change case, it would have driven negative avoided costs even
25 deeper; wouldn't it?

1 A If you wanted to attribute those cycling costs to
2 those few hours of curtailment. You know this is a good case
3 where you should be looking at the value of your QF generation
4 over the whole three days versus the value of the system
5 generation over the whole three days.

6 Q And you kept CR-4 off --

7 A Just hang on a moment. I want to look at something,
8 so I can properly answer you. (Pause) Yes.

9 Q Now, keeping CR-4 off during that three-day run is a
10 tool you used to deal with the minimum load situation; is that
11 right?

12 A The fact that it wasn't restarted has got more to do
13 with the fact that the economics of the system after the
14 curtailment period were better with the unit off than with the
15 unit on.

16 Q But it had to be restarted?

17 A Yes.

18 Q And it cost money to restart it?

19 A If one had restarted it immediately after that
20 curtailment event, then one would have spent some money
21 restarting it and gained some money through it being on line
22 as against that start-up. And the whole operation over the
23 three days, from what I just had a look at, would have been
24 cheaper in the change case, even if Crystal River 4 had been
25 restarted, then it would have been left off.

1 Q You're making a judgment that it would --

2 A Yeah, just by looking at the numbers and the answers
3 to how much cheaper the actual run was. You could have
4 restarted Crystal River 4, I think, and put it back on and
5 still had a cheaper three-day operation in the change case
6 than the base case.

7 Q Is it cheaper to cycle that off than to run it?

8 A It was cheaper to leave it off as far as this
9 three-day run was concerned, but if one had put it back on,
10 the run would have cost in the change case still less than the
11 base case. Not as cheap as the change case with leaving it
12 out but still cheaper than the base case.

13 Q Now, do you know what the costs of restarting CR-4
14 are?

15 A I have examples of it in -- for example, I'll look
16 at the 7th for you and pick out the cost on that run. Hang on
17 just a minute. The 2nd would be a good one. It's nice and
18 isolated.

19 There was a \$12,000 start-up cost -- well, let's
20 check that. Actually an \$11,937 start-up cost on the 2nd. On
21 the May 18th run -- (pause) Okay, here we go. Yes. A little
22 under \$12,000 represents it.

23 Q Now, would you agree that those cost figures are for
24 hot starts?

25 A Oh, yes, that was for a six-hour.

1 Q Okay. And you have had CR-4 off for three days on
2 this day; is that right, in this run?

3 A No. It was off from about 10:00 on the night of the
4 13th.

5 Q Yes, and you kept it off for three days?

6 A No, two days.

7 Q Two days. That's not a hot start, correct?

8 A No, that's not going to be a hot start.

9 Q And it's going to cost a lot more?

10 A Neither is the starting of CR-2 in FPC's change case
11 going to be a hot start, either. It's going to be --

12 Q Would you agree -- I'm sorry.

13 A -- a cold start.

14 Now, see, when these units are cycled off and they
15 stay off, that sort of thing is going to happen whether you're
16 in a base case or a change case.

17 Now, if we have a look on that day -- you're talking
18 about the 14th one. Give me a minute until I find the right
19 one. Here it is. Okay.

20 In his base case, for the 14th event, the Crystal
21 River 2 unit was cycled off at actually 9:00 on the evening of
22 the 13th. It was cycled off and stayed off because of the
23 lower overall load levels on the system from then on.

24 Now, that unit cycled off and stayed off in the base
25 case. Therefore, to cycle off some other unit, or the same

1 unit in the change case, is a perfectly normal event.

2 Now, in the base case one would have had to have
3 restarted Crystal River 2, if you wanted to get back to the
4 same situation of all of your units in service. In the change
5 case you have to restart Crystal River 2 or Crystal River 4 at
6 some future time to get back to all units in service again.
7 So, you know, if you're comparing the base case and the change
8 case you have to compare apples and apples.

9 Q You would agree that in your run you cycled off a
10 unit that is used for load control, CR-4?

11 A Yes. Now, I'd like to make a point about this load
12 control.

13 A unit like CR-4 can't be in service 52 weeks a
14 year. Yes, it may well be used for load control when it's in
15 service because it's desirable to do so, but that unit has got
16 a number of weeks of maintenance every year in which it can't
17 perform any load control duty when it's in bits and pieces.
18 The system does without it quite happily when it's on
19 maintenance, so it can do without it quite happily for a few
20 other hours during the year, and we're only talking a handful
21 of hours.

22 Q Would you agree that when all you have on line are
23 coal units, that you need the coal units for load control?

24 A I think that you will -- yes. I think you need load
25 control, yes. And you have a fair amount of load control.

1 Now, the times when you're going to be maintaining a unit like
2 Crystal River 4 and Crystal River 5 are going to be reasonably
3 lower load periods during the year, so you are going to take
4 them out for economics, not during your peak load times.
5 You're going to take them out during your low load periods for
6 maintenance.

7 Q Let's talk about January 30. Now, is it correct
8 that here you kept Bartow 3 on in your change case?

9 A Yes.

10 Q And this helps you to avoid cycling costs?

11 A Yes.

12 Q And you achieved this by leaving the derations in
13 place on CR-4?

14 A Just a moment. In that case on the 30th, I didn't
15 even bother to remove the derations from Crystal River 4. If
16 I had done that, my change case would have been even cheaper.

17 Q You kept CR-4 below its normal?

18 A Only because I didn't want to spend the time
19 meddling with that case. I didn't have the time to spend.
20 I'd already shown that leaving Bartow 3 on was a better unit
21 commit schedule. I could have tidied up the case. But in
22 tidying up the case, I would have only gone even more positive
23 avoided costs. I had no need to do that to demonstrate what I
24 was trying to demonstrate. If I had had plenty of time I
25 would have tidied it up and removed the restrictions on CR-4

1 or as many of the restrictions as I could have.

2 Q So you opted to leave the deration in place on CR-4?

3 A Just as a time expediency, because I didn't have
4 much time, as you fully realize.

5 Q If you had removed those derations, you would agree
6 that Bartow 3 may not have come on?

7 A May not have what?

8 Q May not have come on? May not have stayed on?

9 A Let me have a look. (Pause)

10 Q I'm sorry. Let me withdraw that question and put it
11 this way: If you had removed the derations and left Bartow 3
12 on, would you agree that something else would have cycled off?

13 A I don't know until I look at it. (Pause) I'm
14 sure --

15 CHAIRMAN CLARK: While he's looking, Mr. Sasso, you
16 are close to being done, are you not?

17 MR. SASSO: Yes.

18 CHAIRMAN CLARK: Good.

19 A If we look at the base case on that one, you'll find
20 that there is a restriction placed on Crystal River 4, no
21 restriction placed on Crystal River 5. Crystal River 5 is
22 doing a fair bit of generation in a number of hours there,
23 above its minimum, which would indicate to me that there was
24 some reason for putting Crystal River 4 minimum down and still
25 having Crystal River 5 generating up. So I left those

1 restrictions in place.

2 Q (By Mr. Sasso) And yesterday you criticized Florida
3 Power for leaving derations in place in its change case?

4 A No. You missed my point. The point you're missing
5 here is that why would I in my base case be running Crystal
6 River 5 at 420 megawatts and Crystal River 4 at 183 megawatts,
7 when I could have had the pair of them operating at 300,
8 unless there was some reason for doing so? So I left that
9 reason in place.

10 Q Now, if we had removed the derations on Crystal
11 River 4 in your change case and kept Bartow 3 on --

12 A Well, I didn't have a reason to remove them.

13 Q If we had.

14 A If you had of. If you had given me a different base
15 case. Then if you had given me a different base case I might
16 have given you different change case.

17 Q If we had removed the derations in our change case
18 and left Bartow 3 on, you agree that another unit would have
19 cycled off?

20 A I don't know what would have been the best schedule
21 to have adopted if you had given me a different base case. I
22 can only work with the base case you give me.

23 CHAIRMAN CLARK: Mr. Slater, I think you might be
24 talking past each other. He's simply asking you a question.
25 If you had left them on, what the would have happened? I

1 mean, he's not asking you to agree with that as the way it
2 should have been done. He's just asking you what would have
3 happened.

4 WITNESS SLATER: Well, If I'd have let the program
5 have its way, it may have cycled something off.

6 CHAIRMAN CLARK: Okay.

7 WITNESS SLATER: If I'd let the program have its
8 way. But you don't just let the program have its way, and you
9 have to understand why each one of these restriction -- or try
10 to understand why each one of the restrictions is there.

11 And the restriction on Crystal River 4 in this case
12 did not appear to be an attempt to get down to a lower minimum
13 load on Crystal River 4 because Crystal River 5 was operating
14 very normally at 400-odd megawatts. So it didn't look like a
15 minimum load reduction on Crystal River 4, so I left it there
16 in the change cases and operated under the assumption that it
17 was needed to be down there for something that was being done
18 on that unit in the middle of the night, some little piece of
19 maintenance. It's quite common to reduce a unit lower than
20 its normal minimum if you're doing a piece of work on it while
21 it's in service.

22 MR. SASSO: Just a few more questions and then we'll
23 wrap up, and I appreciate the Commission's patience.

24 Q (By Mr. Sasso) Finally, in your testimony,
25 Mr. Slater, you criticize Florida Power for its reliance on

1 Dr. Lefton's study; is that correct?

2 A I wouldn't put it that way. I would say that I
3 disagreed with using Mr. Lefton's numbers for normal
4 day-to-day operation on the system, yes.

5 Q But you don't challenge those numbers?

6 A I think that the type of work Mr. Lefton is doing
7 should be pursued to enable -- you know, boiler manufacturers
8 and turbine manufacturers and their customers, to better
9 understand the effects of various types of duty on their
10 generating units and boilers, and definitely should be pursued
11 and taken into account when people are planning their systems.
12 I think it's very important work.

13 Q And you're not a metallurgist?

14 A No.

15 Q And you're real not in a position to challenge the
16 quality of his work?

17 A Not of his metallurgical assumptions, but as a
18 mathematician and an engineer, I can look at some of the data
19 extrapolations that have been done and not be very happy with
20 those. That I can look at. But the actual metallurgical
21 processes that Mr. Lefton is looking at I only have, you know,
22 two or three years of engineering school to understand those.
23 And although I might be an electrical engineer, the course I
24 did was basically very heavy on mechanical engineering, as
25 well, because we were supposed to be power system engineers

1 coming out of that course, so we were supposed to be
2 mechanical as well as electrical. Yes, I have a good
3 understanding of those areas, but I'm in no ways an expert in
4 fatigue or creep or the combination of the two features. I
5 just have a working knowledge of these things.

6 MR. SASSO: That's all.

7 COMMISSIONER KIESLING: Staff?

8 MS. BROWN: Staff has no questions.

9 CHAIRMAN CLARK: Commissioners? Redirect?

10 We're going to take a break, a ten-minute break, no
11 more than ten minutes. And I guess say that, I maybe should
12 admonish ourselves more than --

13 (Brief recess.)

14 - - - - -

15 CHAIRMAN CLARK: We'll reconvene the hearing. Go
16 ahead, Mr. McGlothlin.

17 REDIRECT EXAMINATION

18 BY MR. MCGLOTHLIN:

19 Q Mr. Slater, in one series of questions counsel asked
20 whether in performing your comparisons with and without QF
21 generation you assumed a curtailment for a week. Did that
22 question accurately characterize what you were doing in that
23 exercise?

24 A No. I can't remember exactly the question and
25 answer. But the point is, I believe when one is before the

1 fact trying to determine the avoided cost for QF generation,
2 one evaluates the QF generation in or out; that's the QF
3 generation, present or not present, over an extended period of
4 time somewhat like the commitment cycle of generation at the
5 power company. One evaluates it that way. But one doesn't --
6 after the evaluation, if one decides that one can curtail,
7 because one has negative avoided costs, that doesn't mean that
8 the power company shouldn't be at liberty to reclaim the QF
9 generation during those hours that it sees it as being an
10 advantage for the ratepayers to have that.

11 Q Also, in one of your responses you indicated that
12 shortly after your deposition you had taken some clarifying
13 action. Do you recall that answer?

14 A Yes. I looked at the transcript and the transcript
15 did not reflect my belief in the heat of the exchange of
16 questioning. I had leaned too heavily on the with and
17 without, and doing totally without the QF generation for the
18 week, I think, we were discussing at the time. And I said,
19 "Yes, you would leave the QF generation out for the week."
20 Mentally, I was looking at the evaluation, not the after the
21 evaluation practice of dispatching the system as I should have
22 been in this note -- this letter to Mr. McGee was to clarify
23 that position, that I had not stated in the deposition what I
24 actually wanted to say.

25 MR. MCGLOTHLIN: Chairman Clark, I request an

1 exhibit number be assigned to the letter from Ms. Kaufman to
2 Mr. McGee on that point.

3 CHAIRMAN CLARK: Exhibit 14 and it is a letter from
4 Ms. Kaufman to Mr. McGee regarding the depositions of
5 Dr. Shanker and Mr. Slater, dated May 2nd.

6 (Exhibit No. 14 marked for identification.)

7 Q (By Mr. McGlothlin) Mr. Slater, in response to one
8 question, you answered that the illustration in the PURPA reg
9 contemplates that an unit is down and can't come back, and you
10 said that, "Here only CR-3 is of that nature." Would you
11 explain what you meant by that answer?

12 A Yes. All of the other baseload units on the system
13 have minimum shutdown times. In other words, the time to
14 return from, you know, in a hot start from having been shut
15 down according to the unit commit input which is six hours.
16 Now, six hours is not a very long time and just covers the
17 sort of midnight-to-dawn type hours and the unit can be back
18 again to serve the load.

19 The only unit that can't seem to do that would be
20 the nuclear unit, Crystal River 3. If you took it off, you
21 would have to be prepared to do without it through the
22 following several peak periods before that unit was back. But
23 the coal units can be back for the peak periods on those same
24 days. So there's not a doing without that generation and
25 having to start up higher priced resources or what have you to

1 cover the load.

2 Q With respect to the change cases prepared by FPC and
3 by you, did you have an opportunity to exam whether
4 empirically any unit cycled off under those seven situations
5 would have been back in time to meet rising load?

6 A Well, in each case that the unit cycles off, it's
7 back to meet the bulk of the load that day. It's not missing
8 from the generation schedule for more than the six hours or
9 seven hours of shutdown plus another hour of ramping. That's
10 all the time that it's missing.

11 Q In several questions counsel suggested that the
12 actual return time in a given situation could be longer than
13 the six hours in unit commit.

14 Let me ask you whether when Florida Power
15 Corporation curtails QF generation, do those QFs return as
16 predictably and timely to meet rising load after the minimum
17 load situation passes?

18 A Well, I think in the first curtailment episode in
19 October, I think there were more than one unit that sort of
20 didn't get back up, just from reading the notes. There was
21 considerable trouble getting some of that QF generation back.
22 I think, you know, what goes for utility units goes for
23 cogeneration units. You may have difficulty getting them
24 back, and your curtailment inadvertently might last longer
25 than you thought it would. In other words, you may be doing

1 without QF generation when you need it. The same thing when
2 you shut down. You know, to be fair, when you shut down a
3 utility unit you may not have it back when you anticipated
4 having it back.

5 One of the additional problems, Mr. McGlothlin, is
6 that to ask some of these QFs to reduce is sometimes
7 difficult. From discussions with some of these people, if the
8 unit was not designed to do this regulation, it can have
9 problems with its air quality, you know, the emissions, and
10 sometimes they will end up taking the unit off because they
11 can't meet the air quality conditions.

12 MR. SASSO: I object and move to strike that
13 statement. I thought that we had agreed we weren't going to
14 be talking about impact in terms of --

15 CHAIRMAN CLARK: Well, Mr. Sasso, I've heard that
16 before in this proceeding, so I don't think it impacts
17 anything. I mean, I either read it or I heard it.

18 Q (By Mr. McGlothlin) Mr. Slater, just a couple of
19 questions about your Exhibit 13, which is the most recent
20 document.

21 For the entry of 10-19-94 under the FPC base case,
22 that shows minimum generation on CR-4 reduced to as low as 149
23 megawatts.

24 A That's correct.

25 Q Just for clarification, is that something that -- a

1 value that you input to the computer or is that FPC's?

2 A That's FPC's.

3 Q And is that a hypothetical or actual?

4 A That is supposed to represent the actual. And from
5 reading some of the curtailment logs, that seems to be
6 accurate.

7 Q Mr. Sasso posed questions to you concerning your
8 decision to cycle off in your change case Crystal River 4.
9 Referring to the FPC change cases for January 2 and January 7,
10 can you tell me if FPC did anything similar?

11 A Yes. In FPC's change cases there is movement of
12 Crystal River 4 in the 2nd of January, cycled off all day,
13 left out, and in the -- on the 7th it's again cycled off all
14 day in their change cases.

15 Q With respect to the 130 situation, again, for
16 clarification, who set Crystal River 4 at 182 megawatts, you
17 or FPC?

18 A FPC set the bound at 182 megawatts and was setting
19 those hours.

20 Q Actual situation or hypothetical?

21 A I think it was actual. It was meant to be actual.

22 MR. SASSO: I'd like to just object to be clear that
23 we're talking about the base case, and not the change case.

24 WITNESS SLATER: Yes, we're talking about the base
25 case.

1 MR. MCGLOTHLIN: That was my intent, sir.

2 Q (By Mr. McGlothlin) Mr. Sasso asked you a question
3 concerning what would happen if you had removed the derating
4 on the unit in that situation; do you recall that?

5 A Yes.

6 Q You did not remove the derating that was actual
7 there, did you?

8 A No, I didn't remove the deration. I never even
9 tried a case without the deration.

10 Q In your change cases, Mr. Slater, did you respect
11 any criteria constraints regarding load control and voltage
12 support?

13 A I respected all of the constraints that were in the
14 program, except as we discussed for the -- just pick out the
15 right one -- for the 8th. The 8th of January, where I reduced
16 Crystal River 5 down to a low of 265 megawatts, which is 35
17 megawatts below its normal minimum for load control purposes
18 of 300 megawatts. But that is a reduction that seemed to be
19 routinely done by Florida Power Corp in its base cases.

20 Q In one response to Commissioner Deason you explained
21 that you spent most of your time analyzing inputs and coming
22 to an understanding of the base case you were given to study.
23 And at that point you were in a position similar to the system
24 operator who knew that much already. Once you're in a
25 position of deciding to vary the program's response, how long

1 does it take to run a unit commit program?

2 A I have had it -- you know, if you run it on a 486 or
3 faster machine, it takes seconds to do a one-day run. It
4 might take sort of 30 seconds to do a three-day run and then
5 you can view the results immediately. It does not take long.
6 It takes you much longer to change the data than it does to do
7 the run.

8 Q Counsel suggested to you that the operator on FPC's
9 system would have to exercise judgment and knowledge of the
10 system in making these kinds of decisions. Do you know
11 whether prior to any of these curtailment events FPC's
12 operators exercised any judgment or discretion?

13 A From what I could tell there were no evaluations
14 done prior to the curtailments. I think the discretion was
15 perhaps exercised about whether they would curtail or not, I
16 think was exercised by the operators' management; not by the
17 operators themselves. That's just as I read it.

18 But supervisors were contacted, and I think those
19 part of the plan anyway, that people are involved; that it's
20 not the operator on shift who says, "Let's curtail tomorrow
21 morning." I don't think it's that way at all. I think
22 there's considerable discussion and sort of nonspecific
23 analysis; done, you know, not number specific, not running of
24 models, but -- there may have been some running of models, I
25 don't know -- but there's no evidence that there was an

1 evaluation of negative or positive avoided costs done, and I
2 think we have witnesses' testimony to that effect that there
3 weren't these analyses done. That's as far as I know it.

4 MR. MCGLOTHLIN: That is all.

5 CHAIRMAN CLARK: Thank you, Mr. McGlothlin.

6 You're excused, Mr. Slater.

7 (Witness Slater excused.)

8 - - - - -

9 WITNESS SLATER: Thank you.

10 CHAIRMAN CLARK: Exhibits?

11 MR. MCGLOTHLIN: I move 10 through 14.

12 CHAIRMAN CLARK: Okay. Without objection, Exhibits
13 10 through 14 are admitted in the record.

14 (Exhibit Nos. 10, 11, 12, 13 and 14 received in
15 evidence.)

16 CHAIRMAN CLARK: Mr. Smith is next, but I note that
17 his testimony goes to discrimination. And I'm wondering if
18 that testimony still needs to be taken?

19 MR. PRESNELL: OCL has no involvement in that issue,
20 but Pasco might.

21 CHAIRMAN CLARK: Well, let me ask a different
22 question. Are there any questions for Mr. Smith? Can his
23 testimony be inserted in the record without objection?

24 MS. BROWN: Staff has no problem with that. We have
25 no questions.

1 MR. WATSON: I have no objection to its being
2 inserted into the record but I would like to cross.

3 CHAIRMAN CLARK: All right. Mr. Smith, have you
4 been sworn?

5 WITNESS SMITH: No.

6 (Witness sworn)

7

- - - - -

8

L. ROY SMITH.

9 was called as a witness on behalf of Aburndale Power Partners,
10 Limited Partnership; Lake Cogen, Ltd; Montenay-Dade, Ltd. and
11 Metropolitan Dade County, Florida; and Tiger Bay Limited
12 Partnership, and, having been duly sworn, testified as
13 follows:

14

DIRECT EXAMINATION

15 BY MR. WRIGHT:

16 Q Good morning, Mr. Smith. Would you please state
17 your name and address for the record?

18 A My name is he L. Roy Smith. My address is 216 South
19 Trask Street, Tampa, Florida 33609.

20 Q And are you the same L. Roy Smith who caused to be
21 filed in this proceeding direct testimony consisting of a
22 cover page and ten pages of text?

23 A Yes.

24 Q Do you have any changes or corrections to make to
25 that testimony?

1 A No.

2 Q So if I were to ask you the same questions contained
3 in that testimony today, would your answers be the same?

4 A Yes, they would.

5 Q And do you adopt this testimony as your sworn
6 testimony for this proceeding?

7 A Yes, I do.

8 MR. WRIGHT: Madam Chairman, I request that
9 Mr. Smith's testimony be entered into the record as though
10 read.

11 COMMISSIONER CLARR: The direct testimony of Mr. Roy
12 Smith will be inserted in the record as though read.

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25

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**IN RE: PETITION FOR DETERMINATION THAT
PLAN FOR CURTAILING PURCHASES FROM
QUALIFYING FACILITIES IN MINIMUM LOAD CONDITIONS
IS CONSISTENT WITH RULE 25-17.086, F.A.C.
BY FLORIDA POWER CORPORATION,
FPSC DOCKET NO. 941101-EG****DIRECT TESTIMONY OF L. ROY SMITH**

1 Q: Please state your name and business address.

2 A: My name is L. Roy Smith. My business address is 216 South
3 Trask Street, Tampa, Florida 33609.

4

5 Q: By whom are you employed and in what capacity?

6 A: I am self-employed as a utility consultant.

7

8 Q: Have you previously testified in proceedings before the
9 Florida Public Service Commission?

10 A: Yes. I have testified in numerous proceedings before the
11 Commission. I testified in hearings related to fuel
12 adjustment in Dockets Nos. 74680-EI, 800400-CI, 810001-CI,
13 820001-EU, 830001-EU and 840001-EU. I also testified in
14 combined Docket Nos. 820007-EU and 830012-EU on the
15 subjects of projected electric revenue and billing
16 determinants. I most recently testified before the
17 Commission in Docket No. 920324-EI on the subjects of
18 projected revenue, billing determinants, and rate design.
19 The proceedings in combined Docket Nos. 820007-EU and

**DIRECT TESTIMONY OF L. ROY SMITH
FPSC DOCKET NO. 941101-EQ**

1 830012-EU, and Docket No. 920324-EI were full revenue
2 requirement rate cases.

3

4 **Q: Please summarize your experience in the utility industry.**

5 **A:** I have more than 38 years of experience in the electric
6 utility industry in Florida. Prior to my work as a utility
7 consultant, I spent my entire career working for Tampa
8 Electric Company in a number of departments. I began my
9 career in the industry in 1956 as a clerk in Tampa
10 Electric's Customer Accounting Department. I worked in
11 several areas within this Department, concentrating
12 primarily on billing of large customers. In 1964, I
13 transferred to the Systems and Procedures Section, which
14 the following year became the Rates & Research Department.
15 In 1982, the Rates and Research Department became the Rates
16 and Regulatory Affairs Department, and in 1987, it became
17 the Rates and Regulatory Control Department. In this
18 Department, I held the titles of Statistical Technician;
19 Rate Analyst; Senior Rate Analyst; Assistant Director,
20 Rates; and, Manager, Rate Design and Administration. As
21 Manager of Rate Design and Administration, I had
22 responsibility for designing and administering the
23 Company's retail tariffs, fuel adjustment filings, and
24 annual revenue budget. I was also responsible for special
25 billing which included billing for all of Tampa Electric's

**DIRECT TESTIMONY OF L. ROY SMITH
FPSC DOCKET NO. 941101-EQ**

1 interchange and cogeneration transactions. In this
2 capacity, I developed and administered the data gathering
3 and procedures for billing cogenerators on standby rates
4 and for computing monthly payments to them under the
5 various contracts.

6

7 **Q: On whose behalf are you testifying in this proceeding?**

8 **A:** I am testifying on behalf of Auburndale Power Partners,
9 Limited Partnership; Lake Cogen, Ltd.; Montenay-Dade, Ltd.
10 and Metropolitan Dade County, Florida; and Tiger Bay
11 Limited Partnership. These entities are all qualifying
12 facilities who sell power to Florida Power Corporation
13 ("FPC") pursuant to Commission-approved contracts.

14

15 **Q: What is the purpose of your testimony in this docket?**

16 **A:** My testimony addresses only one issue in this docket. That
17 issue is whether the curtailment priority system
18 established within FPC's Generation Curtailment Plan for
19 Minimum Load Conditions dated October 12, 1994 (the "Plan"
20 or the "Curtailment Plan"), by which different groups of
21 non-utility generators ("NUGs") are asked or required to
22 curtail in a certain order, is fair, reasonable, and not
23 unduly discriminatory. My testimony concludes that this
24 aspect of the Plan is fair and reasonable, and that it is

DIRECT TESTIMONY OF L. ROY SMITH
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1 not unduly discriminatory as between the different groups
2 of NUGs to which the Plan applies.

3

4 Q: Are you familiar with the concept of undue discrimination
5 as it applies to a utility's relationships with other
6 parties?

7 A: Yes. A general principle governing regulated utilities'
8 services and relationships is that utilities must treat
9 parties that are similarly situated in a fair and equitable
10 manner. Along the same lines, different treatment of
11 parties by a regulated utility should be based on objective
12 differences between the parties that the utility proposes
13 to treat differently.

14

15 For example, a utility may establish different classes of
16 customers based on differences in their electric load and
17 usage characteristics, and may charge those classes of
18 customers different rates per kilowatt-hour of electricity
19 consumed, based on the differences in costs to serve them.
20 On the other hand, it would be unduly discriminatory for a
21 utility to charge two customers in the same class different
22 rates for the same basic service.

23

24 Q: What documents have you reviewed in preparing for your
25 testimony?

DIRECT TESTIMONY OF L. ROY SMITH
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1 A: I have reviewed FPC's Curtailment Plan. I have also
2 reviewed the testimony and exhibits of Robert Dolan and
3 Henry Southwick filed on behalf of FPC.

4

5 Q: Please summarize your understanding of the priority system
6 for curtailments of purchases from QFs under FPC's proposed
7 Generation Curtailment Plan.

8 A: Basically, the Plan provides for a series of actions that
9 FPC will take in addressing a minimum load condition where
10 generation may exceed its minimum load requirements. Under
11 the Plan, FPC first will take certain actions with respect
12 to its own capacity resources by reducing its capacity
13 purchases from other utilities, attempting to maximize off-
14 system sales to other utilities, and reducing the output
15 from its own generating units.

16

17 If after these actions generation is still projected to
18 exceed minimum loads, FPC's Curtailment Plan calls for
19 those QFs with which it has contractual relationships to
20 participate in addressing the minimum load condition. The
21 Plan apportions the burden of curtailment among three QF
22 groups: Group A, Group B, and Group C. Group A comprises
23 those QFs that have voluntarily entered into agreements
24 with FPC to curtail output during low load periods. Group
25 B comprises QFs that have firm contracts with FPC but have

**DIRECT TESTIMONY OF L. ROY SMITH
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1 not executed any formal curtailment agreement. Group C
2 comprises those QFs making power sales to FPC only on an
3 as-available basis.

4

5 In apportioning the burden of curtailment among the three
6 groups, FPC will first call on the Group A NUGs to curtail
7 their output to the maximum extent authorized under their
8 curtailment agreements.

9

10 If further curtailments are required, FPC will then require
11 that QFs who provide as-available energy curtail their
12 output to zero. If generation still exceeds load, FPC will
13 require that the Group B NUGs who have not agreed to
14 curtail their output on request from FPC, to reduce their
15 output by up to 50 percent of their committed capacity. If
16 additional curtailments are required, FPC will require the
17 Group A NUGs to reduce their output by up to 50 percent of
18 their capacity. Beyond that, FPC will require that the
19 Group A and Group B NUGs further reduce their output by an
20 equal percentage of their committed capacity.

21

22 **Q: From your review of the Plan and the testimony and exhibits**
23 **of FPC's witnesses, are you able to form an opinion as to**
24 **whether the Plan is unduly discriminatory as between the**
25 **Group A, B, and C non-utility generators?**

DIRECT TESTIMONY OF L. ROY SMITH
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1 A: Yes. The curtailment priority system of FPC's Curtailment
2 Plan is not unduly discriminatory as between the three
3 groups of QFs.

4

5 Q: Please explain.

6 A: The curtailment priority system under the Plan treats the
7 different groups of NUGs fairly by recognizing that each
8 has different characteristics. These characteristics
9 provide a reasonable and objective basis for apportioning
10 and prioritizing curtailment responsibilities among the
11 three groups of NUGs. The Group C NUGs make no firm
12 commitment to deliver their capacity when FPC needs it.
13 This absence of firm commitment makes it reasonable for FPC
14 to require involuntary curtailments from Group C NUGs
15 first. The Group B NUGs have made no commitment to reduce
16 their output voluntarily to help FPC mitigate low load
17 conditions. This is in sharp contrast with the Group A
18 NUGs, which have formally agreed to curtail deliveries of
19 power to FPC to assist in responding to minimum load
20 events. By operation of these negotiated agreements, the
21 Group A NUGs will have already reduced their output
22 significantly before any involuntary curtailments are
23 demanded. Thus it is fair and reasonable for the Group A
24 NUGs to be the last group from which involuntary
25 curtailments are requested.

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1 Additionally, the plan is not unduly discriminatory as
2 between Group A and Group B NUGs because access to Group A
3 status has been available and, as I understand FPC's
4 testimony, is still available to the Group B NUGs. That
5 is, if a Group B NUG wanted to negotiate a curtailment
6 agreement with FPC by which it agrees to voluntarily
7 curtail its output in the early stages of any low-load
8 event, FPC will agree to transfer that NUG into Group A and
9 treat that NUG accordingly.

10

11 **Q: Does FPC's Curtailment Plan treat the Group A, B, and C**
12 **NUGs fairly?**

13 **A: Yes.** The Plan is fundamentally fair because it effectively
14 recognizes that the voluntary curtailment agreements, which
15 Group A NUGs have entered into with FPC, provide benefits
16 to the Group B and C NUGs by mitigating the number of
17 involuntary curtailment events and reducing, on the front
18 end of any low-load episode, the magnitude of curtailments
19 that might otherwise be required from the Group B and C
20 NUGs.

21

22 For example, the current Group A NUGs provide up to 331
23 megawatts (MW) of curtailable committed capacity plus 66 MW
24 of curtailable capacity that three NUGs normally sell to
25 FPC on an as-available basis. Thus, in a low-load event

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1 where FPC requires fewer than 397 MW of curtailment from
2 all NUGs as a group, all of the needed curtailments will
3 come from the Group A NUGs.

4
5 The fairness of the Curtailment Plan's priority system is
6 a matter of common sense as well as analysis. The Plan's
7 apportionment of the curtailment burden among the three
8 groups of NUGs is not inequitable because it fairly
9 reflects the benefits that the Group A NUGs provide to the
10 other NUG groups by virtue of the Group A NUGs being the
11 first to curtail in any minimum load event.

12

13 **Q: Must the Curtailment Plan distinguish between the three NUG**
14 **groups in order to be fair?**

15 **A:** Yes. I believe it should. In my view, it would be unfair
16 and inequitable if the Plan did not recognize the
17 contributions and benefits that the Group A NUGs provide by
18 reducing the impacts of curtailments on the Group B and C
19 NUGs.

20

21 **Q: Does your opinion, or your testimony, extend to the**
22 **reasonableness of FPC's overall Curtailment Plan?**

23 **A:** No. My testimony does not address, nor do I express any
24 opinion on: (1) the overall reasonableness of the Plan; (2)
25 whether FPC actually needs to curtail QFs in order to

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1 manage its minimum load conditions; (3) whether FPC has
2 demonstrated "negative avoided costs;" or (4) any other
3 aspect of the issue regarding whether FPC has satisfied the
4 criteria necessary to justify curtailment under the
5 applicable FERC and FPSC rules.

6

7 **Q: Please summarize the major points of your testimony.**

8 **A:** The curtailment priority feature of FPC's Curtailment Plan
9 is fair, equitable and not unduly discriminatory against
10 any of the groups of generators established by the Plan.
11 The Plan's priority system equitably apportions the burden
12 of curtailment among the three NUG groups and fairly
13 recognizes that the Group A NUGs provide ongoing benefits
14 to the Group B and Group C NUGs by mitigating the number
15 and magnitude of curtailments which may be required of
16 them.

17

18 **Q: Does this conclude your prefiled direct testimony?**

19 **A:** Yes, it does.

20

21

22 TAL-61086.4

1 Q (By Mr. Wright) Mr. Smith, it's correct that you do
2 not have any exhibits to your testimony?

3 A That's correct.

4 Q Have you prepared a summary of your testimony?

5 A Yes, I have.

6 Q Please proceed.

7 A My testimony addresses the issue as to whether the
8 curtailment priority system within FPC's generation
9 curtailment plan for minimum load conditions is fair,
10 reasonable and not unduly discriminatory as it relates to the
11 group of NUGs -- as the grouping of NUGs as well as the
12 priority of curtailments between the various groups.

13 Each group has different characteristics providing a
14 reasonable and objective basis for apportioning and
15 prioritizing curtailment responsibilities. The commitments
16 from the Group A NUGs benefit the Group B NUGs by reducing the
17 number of times that Group B will have to curtail their
18 output. Further, the magnitude of the curtailments will be
19 minimized for Group B. Group B's only exposure to greater
20 curtailment than Group A is when FPC requests a reduction of
21 Group B greater than approximately 40%. When the curtailment
22 reaches 50%, both groups would again be equal.

23 This concludes my summary.

24 MR. WRIGHT: Mr. Smith is available for cross
25 examination.

1 CHAIRMAN CLARK: Ms. Walker.

2 MS. WALKER: Nothing.

3 CHAIRMAN CLARK: Mr. McGlothlin.

4 MR. PRESNELL: No questions.

5 CHAIRMAN CLARK: Mr. Watson.

6 CROSS EXAMINATION

7 BY MR. WATSON:

8 Q Mr. Smith, good morning.

9 A Good morning.

10 Q On Page 4 of your prefiled testimony you discuss the
11 concept of undue discrimination and state that utilities must
12 treat parties that are similarity situated in a fair and
13 equitable manner?

14 A Yes.

15 Q That different treatment of parties by regulated
16 utilities should be based on objective differences between the
17 parties that the utility proposes to treat differently?

18 A Correct.

19 Q Where do you get that concept?

20 A It's a concept that I learned in my 38 years in the
21 electric utility industry in designing rates and administering
22 rates almost on a daily, weekly basis.

23 Q And your experience over 38 years was with a
24 regulated electric utility, was it not?

25 A That's correct.

1 Q And when you were designing the rates and rate
2 schedules, those were rates and rate schedules that applied to
3 service provided, I believe it was, by Tampa Electric Company
4 to its retail customers?

5 A That's correct.

6 Q Would you agree with me that the concept of -- that
7 "a utility shall not unduly discriminate" comes from Section
8 366.03, Florida Statutes, which applies to the relationship
9 between a utility and its customers?

10 A I haven't read that any time recently, so I really
11 couldn't comment on that.

12 Q Are you aware of any statutory provision that deals
13 with the relationship between a utility and its suppliers,
14 such as the QFs in this case are situated vis-a-vis FPC?

15 A A specific statute?

16 Q Yes.

17 A No, sir.

18 Q You've said that any different treatment of parties
19 by a regulated utility should be based on objective
20 differences between the persons that the utility proposes to
21 treat differently?

22 A Yes, sir.

23 Q Is it not true that the only difference between the
24 QFs in Group A and those in Group B under Florida Power's
25 curtailment plan is that the QFs in Group A have voluntarily

1 amended their agreements with Florida Power with respect to
2 curtailment while those in Group B have not?

3 MR. WRIGHT: I object to the extent that it may
4 require a legal opinion from Mr. Smith as to whether the
5 agreements were amended by the voluntary curtailment
6 agreements.

7 MR. WATSON: Well, Schef, if we want to get into
8 legal, I think his interpretation --

9 CHAIRMAN CLARK: Mr. Watson, I think you can restate
10 your question and still get an answer you're looking for.

11 MR. WATSON: I think it's purely a question of fact.

12 Q (By Mr. Watson) Is a difference between the Group A
13 QFs and the Group B QFs, that the Group A QFs have agreed to
14 amendments to their contracts with respect to reduction of
15 output while the QFs in Group B have not? Is that a
16 difference?

17 MR. WRIGHT: Same objection.

18 CHAIRMAN CLARK: I think if you just asked if they
19 agreed to curtail or to cut back without characterizing it as
20 an amendment, then the objection goes away; is that correct?

21 MR. WRIGHT: Yes, ma'am.

22 CHAIRMAN CLARK: Okay.

23 MR. WATSON: I see where you're coming from. It
24 completely escaped me.

25 Q (By Mr. Watson) To your knowledge, Mr. Smith, have

1 the Group A NUGs agreed to reduce their output during certain
2 minimum load hours?

3 A Yes, sir.

4 Q To your knowledge, have the Group B NUGs not entered
5 into such agreements?

6 A Yes, they have not.

7 Q Can you think of any other difference between the
8 NUGs in Group A and the NUGs in Group B?

9 A As I stated in my summary, I think that the NUGs in
10 Group A are lending -- are being asked -- are voluntarily
11 curtailing, which is lending some benefits to the Group B NUGs
12 and minimizing the number of curtailments that they would
13 have.

14 Q Okay. But all of those differences flow from the
15 fact that the Group A NUGs have agreed to the curtail during
16 certain hours while the Group B NUGs have not.

17 A That's correct.

18 Q So we're really talking about the same difference.
19 We'll get into the benefit in just a minute.

20 And that difference, I think, is highlighted at
21 Page 7 of your testimony, Lines 15 to 20, where you state "The
22 Group B NUGs have made no commitment to reduce their output
23 voluntarily to help FPC mitigate low load conditions. This is
24 in sharp contrast with the Group A NUGs, which have formally
25 agreed to curtail deliveries of power to FPC to assist in

1 responding to minimum load events."

2 Now, that is really the difference between the Group
3 A and Group B NUGs.

4 A Yes.

5 Q Are you aware of any requirements in the contracts
6 between Florida Power Corporation and any of these QFs that
7 require any QF to assist Florida Power Corporation in minimum
8 load situations?

9 A In the contracts?

10 Q Yes?

11 A The original contracts?

12 Q Yes.

13 A No, sir.

14 Q Are you aware of any provision of the Florida
15 Statutes, the federal statutes and regulations or the rules of
16 this Commission that require that a QF render such assistance
17 to Florida Power Corporation?

18 A I think that's what this whole hearing is about,
19 mostly is that -- whether that's the QFs will -- whether
20 Florida Power Corporation will have the opportunity to curtail
21 load during minimum load conditions of the QFs.

22 Q But as opposed to Florida Power involuntarily
23 curtailing its purchases from the QFs, are you aware of any
24 statute or rule that requires the QFs to voluntarily reduce
25 their output?

1 A Not at this time.

2 Q Okay. Now, you've indicated that the Group B NUGs
3 receive a benefit from the agreements entered into between
4 Florida Power Corporation and the NUGs in Group A?

5 A Yes, sir.

6 Q And that would be pretty difficult to dispute, would
7 it not?

8 A I think so.

9 Q Would you also agree with me that the NUGs in Group
10 B had nothing whatsoever to do with the agreements between
11 Florida Power and the NUGs in Group A?

12 A They had nothing to do with those agreements?

13 Q Correct.

14 A Specifically, I would think not.

15 MR. WATSON: That's all I have.

16 CHAIRMAN CLARK: Thank you, Mr. Watson.

17 COMMISSIONER GARCIA: The selection of those that go
18 in Group A are purely based on the fact that they entered into
19 agreements with Florida Power?

20 WITNESS SMITH: That's correct. And those in Group
21 B have an opportunity to join Group A should they so desire.

22 COMMISSIONER GARCIA: There is, of course, a benefit
23 to being in Group A. It's a greater financial benefit in
24 terms of operations in Group A than in Group B?

25 WITNESS SMITH: Not that I know of.

1 CHAIRMAN CLARK: Mr. McGee.

2 MR. MCGEE: No questions.

3 MS. BROWN: Staff has no questions.

4 CHAIRMAN CLARK: Commissioners? Redirect.

5 MR. WRIGHT: No redirect.

6 CHAIRMAN CLARK: Thank you, Mr. Smith.

7 WITNESS SMITH: Thank you.

8 CHAIRMAN CLARK: Mr. Dolan.

9 MS. BROWN: Chairman Clark, yesterday Mr. Presnell
10 brought up a few housekeeping items that I think you deferred
11 to this point in the proceeding today. I just wanted to
12 remind you of that.

13 CHAIRMAN CLARK: Well, they did move Exhibit 10.
14 And was there any objection on the Staff's part of moving the
15 stipulation between FPC and Orlando CoGen into the record?

16 MS. BROWN: Let me speak to that for just a minute,
17 if I may.

18 When this stipulation was given to me yesterday, I
19 think it became clear to the Commission at that point that we
20 had not seen this stipulation before. And I'm hoping that
21 that fact helped to dispel what I believe was a mistaken
22 impression left with the Commission earlier, that Staff's
23 request to have Exhibit 7 entered into the record was an
24 attempt to subvert or get around or circumvent an agreement
25 not to deal with the specific aspects of harm that are

1 identified in this agreement. That was not our intent in
2 introducing that exhibit. Our intent was, as we stated
3 yesterday, to allow the Commission the opportunity to have
4 this additional fact to demonstrate the scope and magnitude of
5 the problem that you have to address here.

6 If I had seen this stipulation before, I wouldn't
7 have objected to it, because I don't think, from having read
8 it several times, that I ever would have thought in a million
9 years that it would be so broadly interpreted as to preclude
10 the Commission from considering evidence about the magnitude
11 or scope of this proceeding simply because there might be some
12 inference that could be made that the QFs were not harmed.

13 It seems to me that the exhibit we introduced
14 yesterday could be inferred the other way; that Power Corp
15 doesn't have much of a problem either, and I think Mr. Shanker
16 brought that up yesterday.

17 I have no objection to its admission. Personally, I
18 think it's completely irrelevant to any issue that's before
19 you in the case, but I'm not going to object to it. And I
20 suggest that the Commission has discretion to have this
21 evidence in the record and give it the weight that it's due.
22 But I encourage you not to interpret it in a fashion that is
23 so broad that you would be precluded from investigating the
24 full scope and effect of this curtailment issue.

25 If it were to -- if this stipulation were to be

1 interpreted that broadly, you might as well not deal with the
2 facts that there were only seven curtailments in the year
3 1994-95, because that has an implication that QFs might not
4 have been harmed so much. And with that I'll end.

5 Thank you.

6 CHAIRMAN CLARK: Okay. Mr. Presnell, you wanted to
7 read a statement into the record?

8 MR. PRESNELL: Yes, and if I could just respond
9 briefly to that.

10 I assumed yesterday when I offered the stipulation
11 that Staff counsel was aware of it. My false assumption was
12 probably due to the fact that I did not plan on being at this
13 hearing and did not attend the prehearing conference and so
14 for that I apologize.

15 I would also note for the Commission, however, the
16 Staff did not share its Exhibit 8 with us, either. So it took
17 us by surprise yesterday, and the lack of communication, which
18 was inadvertent, I believe, is what caused the problem.

19 The other issue I'd like to deal with involves a
20 matter that we've resolved with OCL -- I mean with Florida
21 Power, if I could just read that into the record.

22 CHAIRMAN CLARK: And all of the parties are aware of
23 what you want to read into the record?

24 MR. PRESNELL: Yes, and I believe I have everyone's
25 agreement.

1 CHAIRMAN CLARK: All right. Go ahead, Mr. Presnell.

2 MR. PRESNELL: "Commissioners, as previously
3 indicated by counsel for Florida Power, OCL and Florida Power
4 have reached an agreement which allows OCL to be treated as a
5 Group A NUG and, therefore, resolves some of the issues
6 involved in this proceeding. A copy of this agreement
7 contained in a letter dated May 8th is being offered into
8 evidence to clarify the record in this regard. As a result of
9 this agreement, Mr. Yott's testimony is being withdrawn and
10 portions of Mr. Southwick's rebuttal testimony is being
11 withdrawn, and those specific portions are set forth in the
12 letter that we will offer into evidence.

13 "In addition, OCL wishes to make it clear that OCL
14 has offered to provide voluntary curtailment assistance to
15 Florida Power since mid-December 1994, and that Florida Power
16 has accepted OCL's voluntary output reductions during the
17 January curtailment episodes."

18 That concludes my statement.

19 I would like to offer the letter agreement into
20 evidence at this time.

21 CHAIRMAN CLARK: Okay. We'll mark it as Exhibit 15.

22 MR. PRESNELL: Is the stipulation still Exhibit 10
23 or am I confused, are there two Exhibit 10s?

24 CHAIRMAN CLARK: No, the stipulation is Exhibit 10.

25 MR. PRESNELL: Okay.

1 attached as Exhibit A to that. We can do it now, or we can
2 wait until Mr. Southwick takes the stand. Whatever your
3 pleasure.

4 CHAIRMAN CLARK: Let's wait until Mr. Southwick
5 takes the stand.

6 MR. FAMA: The last housekeeping matter, Ms. Brown
7 brought this to my attention. There is a Nevada Commission
8 Order on point where the Nevada Commission considered
9 curtailment, a curtailment dispute similar to the one you have
10 in front of you today. And the Nevada Commission in November
11 of 1994 issued an order, and it's a reportable order, and
12 whatnot, and we intended --

13 CHAIRMAN CLARK: November of '95.

14 MR. FAMA: Excuse me, November of '94. And we
15 planned on using it in our briefs and all parties will
16 probably brief this issue.

17 MS. Brown suggested that I ask the Commission to
18 take official notice of this in light of the fact that there's
19 been a request to take official notice of a New York decision.

20 CHAIRMAN CLARK: I think that's appropriate. We'll
21 take official notice. Can you give us a title?

22 MR. FAMA: Yes.

23 CHAIRMAN CLARK: And you even have it to pass out?

24 MR. FAMA: Yes, we have it to pass out.

25 CHAIRMAN CLARK: Wonderful.

1 MR. FAMA: The title is -- it's before the Public
2 Service Commission of Nevada. It is Saguaro Power Company
3 versus Nevada Power Company. I'll spell some Saguaro,
4 S-A-G-A-R-O. It is Docket No. 93-5037 and the date is
5 November 21st, 1994, and it is called "Order".

6 CHAIRMAN CLARK: Okay. I think that identifies it
7 sufficiently. We'll take official notice of that Nevada
8 order. Are we ready to take Mr. Dolan's testimony now?

9 MR. FAMA: Yes.

10 CHAIRMAN CLARK: Okay.

11 - - - - -

12 ROBERT D. DOLAN.

13 was called as a rebuttal witness on behalf of Florida Power
14 Corporation and, having been duly sworn, testified as follows:

15 DIRECT EXAMINATION

16 BY MR. FAMA:

17 Q Mr. Dolan, you have sponsored prefiled rebuttal
18 testimony without any exhibits?

19 A Yes.

20 Q Are there any corrections to your rebuttal that you
21 need to make?

22 A Only one minor correction on Page 11, Line 12, and
23 somehow we typed in the wrong page off the Commission Order.
24 It should be Page 23 instead of 25. And, in fact, the order
25 is only 23 pages long.

1 Q Other than that correction, Mr. Dolan, if I were to
2 ask you today the questions that appear in your testimony,
3 would you give the same answers?

4 A Yes, I would.
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REBUTTAL TESTIMONY OF
ROBERT D. DOLAN

1 **I. INTRODUCTION AND QUALIFICATIONS**
2

3 **Q. Please state your name and business address.**

4 **A. My name is Robert D. Dolan. My business address is Post Office Box**
5 **14042, St. Petersburg, Florida 33733.**
6

7 **Q. Have you previously testified in this proceeding?**

8 **A. Yes. I filed direct testimony on behalf of Florida Power Corporation**
9 **("Florida Power" or "the Company") on February 20, 1995.**
10

11 **Q. What is the purpose of your current testimony?**

12 **A. The purpose for my current testimony is two-fold. First, I will show that**
13 **Messrs. Roy Shanker and Kenneth Slater, on behalf of Orlando Cogen**
14 **Limited, L.P. and Pasco Cogen, Ltd. (jointly "OCL/Pasco"), have created**
15 **a self-serving and unsupported analytic framework under which they**
16 **falsely claim that PURPA prohibits the Commission's approval of Florida**
17 **Power's Curtailment Plan. They literally invent a whole new set of**
18 **criteria which do not appear in the statute or the implementing**
19 **regulations and which are all aimed at assuming away any need or**
20 **justification for QF curtailments. These alleged tests find no support in**

1 any of the OCL/Pasco evidence and they would undermine the plainly
2 stated standards of this Commission's and the FERC's rules.

3
4 My second objective is to rebut the claims of Messrs. Shanker and
5 Slater that the minimum load problems being experienced by Florida
6 Power are the result of bad planning by the Company and the failure to
7 insist on QF dispatchability as a pre-condition to purchasing QF power.
8 In fact, the Company has made prudent planning decisions and
9 expressly accounted for the potential need to curtail QF supplies in all
10 of its contracts.

11
12 **Q. Please summarize your rebuttal testimony.**

13 **A. Mr. Shanker has created his own image of what FERC's curtailment rule**
14 **and this Commission's curtailment rule require. I will demonstrate that**
15 **he unreasonably reads specific tests into those rules that cannot be**
16 **found within the rules themselves. These relate, for example, to the**
17 **ability to have foreseen and planned ahead to avoid a minimum load**
18 **curtailment situation, the permitted duration of the problem, specific**
19 **ways to mitigate the problem short of curtailments, etc. While reading**
20 **a series of new standards into the PURPA framework, Mr. Shanker**
21 **conveniently ignores the important PURPA principle that QF purchases**
22 **were never intended to harm the interests of utility ratepayers. In fact,**
23 **Mr. Shanker's framework would necessarily lead to adverse ratepayer**
24 **impacts. Mr. Shanker, like Mr. Slater, also ignores the fact that Florida**

1 Power's QF contracts all dealt with the minimum load problem well in
2 advance by specifically referencing curtailment rights.
3

4 Next, I will show that Messrs. Shanker and Slater erroneously portray
5 the current minimum load problems on Florida Power's system as a
6 result of poor planning and the failure to have insisted on QF
7 dispatchability. They also incorrectly claim that Florida Power rejected
8 the notion of dispatchability because it would have cost the Company
9 (in fact, the Company's ratepayers) more to buy this scheduling
10 flexibility.
11

12 I will show that Florida Power's ongoing planning assumptions have
13 been endorsed by this Commission and have been reasonable. Several
14 factors contribute to the current minimum load problem. First, the
15 Company's peak demand has not grown as rapidly as had been
16 reasonably anticipated. Second, minimum loads, which were expected
17 to grow at about the same rate as peak loads, have in fact increased at
18 a slower rate. Third, reasonable projections of QF project attrition have
19 not panned out because of an active secondary market in which project
20 ownership has been easily transferable.
21

22 While Messrs. Shanker and Slater blame the minimum load problem on
23 Florida Power, they do not offer a shred of evidence showing that the
24 Company was unreasonable in the planning assumptions it made a
25 number of years ago.

1 I will also show that the Company did not act unreasonably when it did
2 not mandate dispatchability as a condition for its QF purchases. The
3 negotiated contracts contained at least two other mechanisms to deal
4 with off-peak operational concerns. One was a performance-based
5 pricing adjustment designed to approximate the effects of economic
6 dispatch. Another was the specific adoption of curtailment rights under
7 Rule 25-17.086. Insisting on economic dispatch rights undoubtedly
8 would have been challenged at the time as an unnecessary mechanism
9 and one which would have the effect of discouraging QF development.

10
11 The minimum load problem is being experienced today by Florida Power
12 in spite of good planning, not because of bad planning. The problem is
13 expected to diminish as the demands grow to match the supply. In the
14 meantime, Florida Power's contracts, including the ones with
15 OCL/Pasco, clearly contemplate and allow curtailments and, through
16 continuation of capacity payments, provide a substantial amount of
17 revenue protection for those QFs who are curtailed.

18
19 **II. REBUTTAL TO OCL/PASCO'S TESTIMONY**

20
21 **A. OCL Proposes An Unsupported And Self-Serving Analytic**
22 **Framework For Evaluating The Curtailment Plan**

23
24 **Q. Do you agree with OCL/Pasco's analytic framework for evaluating the**
25 **sufficiency of the Curtailment Plan?**

1 A. No.

2
3 Q. Why do you object to the OCL/Pasco framework?

4 A. I believe that both Messrs. Shanker and Slater have constructed a self-
5 serving and unsupported analytic framework which assumes away the
6 problem of overgeneration and the legitimate need for QF curtailments.
7 They do so in several notable ways. First, Mr. Shanker presents a
8 biased, overly restrictive reading of PURPA and the regulations under
9 that statute suggesting that they have an exclusive goal of promoting
10 cogeneration and protecting the QF at all costs. While I do not dispute
11 the fact that PURPA sought to encourage cogeneration development,
12 the statute and the related regulations reflect the complementary
13 objective of protecting native load utility customers from increases in
14 their cost of service. OCL/Pasco would evidently read this ratepayer
15 protection aspect entirely out of the PURPA framework. For example,
16 Mr. Slater observes that "PURPA prefers cogeneration . . . From that
17 standpoint alone, FPC's priorities violate the intent of PURPA." (Slater,
18 page 7). Undoubtedly, this Commission understands that ratepayer
19 neutrality is an equally important objective of the PURPA program.

20
21 Q. What else is wrong with OCL/Pasco's framework?

22 A. I also believe that Messrs. Shanker and Slater overlook or ignore the
23 important discretionary function which this Commission must perform
24 in evaluating Florida Power's curtailment practices. The FERC's rules
25 are not as comprehensive or one-sided as the OCL/Pasco witnesses

1 imply. Instead of laying out every detail of the PURPA implementation
2 program, the FERC rules followed Congress' instructions to delegate
3 implementation functions largely to the states. Using that delegated
4 authority, this Commission has issued rules by which it oversees the
5 QF/utility relationships in Florida. Rule 25-17.086 is a part of that
6 oversight function. I believe that rule should be applied in a manner that
7 recognizes the Commission's discretion to evaluate all of the adverse
8 cost and reliability consequences of the minimum load problem and
9 whether Florida Power's Curtailment Plan sets forth necessary and
10 appropriate procedures for notification and corrective action in response
11 to the problem.

12
13 **Q. In what other ways do you question OCL/Pasco's discussion of an**
14 **appropriate theoretical framework?**

15 **A. The OCL/Pasco testimony is more illustrative in what it does not prove**
16 **than in what it attempts to prove. Mr. Shanker recites a set of**
17 **theoretical criteria for applying the applicable curtailment rules as if his**
18 **statements were direct quotes from the rules. He says no less than 13**
19 **times that "it is clear" what the rules require, or "it is evident" what**
20 **they require, or "it is implicit" that they should be read as he would like**
21 **them to read. But, significantly, the witness does not cite any**
22 **compelling support for his assumptions. In fact, if anything, his exhibits**
23 **contradict his own conclusions.**

24
25 **Q. Please explain what you mean.**

1 A. Maybe the best example is the way in which Mr. Shanker reads specific
2 tests into FERC's curtailment rule that simply aren't written into the
3 language of that rule. He repeatedly states that Section 292.304(f)
4 applies only to: extraordinary conditions, for which the utility cannot
5 plan and cannot otherwise respond, which consist of short-term
6 operational impacts, that affect utility costs rather than revenues, and
7 which must first be mitigated by every conceivable measure. Obviously,
8 his goal is to repeat these undocumented claims enough times to create
9 the illusion that he is referring to established tests by which curtailments
10 must be evaluated under Section 292.304(f) and Rule 25-17.086.

11
12 Let me very briefly touch on these points. First, while I would not
13 contend that Florida Power's curtailment problem is by any means a
14 routine occurrence, I have read the FERC's curtailment rule and it says
15 nothing about "extraordinary conditions." The actual language of the
16 rule authorizes curtailment during "any period" in which, because of
17 operational circumstances, the utility would incur greater costs by
18 continuing the QF purchases.

19
20 Second, while QF capacity and energy resources are, of course,
21 integrated into the Company's ongoing planning processes, the rule
22 does not say that curtailment conditions must be unanticipated or
23 planned around; I suppose it could be argued that with perfect foresight
24 any contingency could be planned around at some cost. Nevertheless,

1 the evidence in this case shows that Florida Power's planning practices
2 have been reasonable and have been endorsed by this Commission.
3

4 Third, I believe that Mr. Shanker is unilaterally establishing a short-term
5 impact test which also is noticeably missing from the "operational
6 circumstances" language actually used by the FERC in Section
7 292.304(f). Of course, defining what period represents a "short-term"
8 impact is itself highly judgmental depending upon context and
9 circumstances. From a planning perspective, the current minimum load
10 conditions certainly are not long-range in scope.
11

12 Fourth, Mr. Shanker says that this Commission must examine
13 production costs, exclusive of revenues, where again the FERC rule says
14 nothing to that effect. In fact, the FERC "NOPR" which Mr. Shanker
15 includes in his Exhibit II (RJS-4) (at page 8 of 16) discussed the need
16 to allow curtailments when QF purchases "might result in net increased
17 operating costs to the electric utility" and explained that requiring
18 purchases when avoided cost is zero or less "would not be just and
19 reasonable to the consumers of the electric utility, because it would
20 result in increased costs to the system's ratepayers."
21

22 Finally, on the question of mitigation, I note that Mr. Southwick
23 discusses the significant efforts which the Company has made in that
24 regard. I would like to add two points. Just like the other asserted
25 "tests" advanced by Mr. Shanker, there is no mention in the curtailment

1 rules of an affirmative obligation to mitigate QF curtailments, let alone
2 to follow the specific mitigation practices which OCL/Pasco recite as if
3 they were law. Obviously, this is an area where the Commission's
4 reasonable discretion must come into play.

5
6 My second point relates to OCL/Pasco's assertion that there is an
7 affirmative requirement for a utility to offer all excess energy off-system
8 at any price (*i.e.*, to inflate demand at ratepayer expense) before
9 considering curtailments. I have reviewed Mr. Shanker's
10 Exhibit II (RJS-5), which summarizes comments received by the FERC
11 on its proposed PURPA rules. That summary, at page 6 of 7, explains
12 that when FERC proposed its curtailment rule "[t]wo public utility
13 commissions recommend[ed] that the utility which is refusing energy
14 from a qualifying facility under this subsection be required to endeavor
15 to resell the energy to interconnected utilities and to wheel the energy."
16 Despite this specific recommendation, FERC did not include such a
17 requirement in Section 292.304(f). In fact, in Order No. 69 (Mr.
18 Shanker's Exhibit II (RJS-6) at page 6 of 24), after explaining that
19 purchases from QFs are not required during periods described in Section
20 292.304(f) or during system emergencies, the FERC explained that a
21 utility has no obligation to pay for capacity or energy that is not needed
22 to meet its total system load, and further stated that "[t]hese rules
23 impose no requirement on the purchasing utility to deliver unusable
24 energy or capacity to another utility for subsequent sale."

1 Therefore, the off-system sales obligation advocated by Mr. Shanker is
2 hardly as "clear" in the FERC rules as Mr. Shanker contends. In fact,
3 the FERC's discussion in Order No. 69 coupled with its decision not to
4 require off-system sales or wheeling of curtailed energy suggests the
5 exact opposite.

6
7 I should note that this Commission has also considered the kind of
8 circumstances under which a utility should sell unneeded energy to third
9 parties and has said, in Rule 25-17.0832(6), that such sales are
10 "encouraged" -- not required -- and that they should only be made at
11 prices which are "cost effective to the ratepayers."

12
13 **Q. Are there still other problems with OCL/Pasco's analytic framework?**

14 **A. Yes, there are. Unlike the OCL/Pasco witnesses, I believe that minimum**
15 **load conditions experienced in the course of prudent system operations**
16 **which would give rise to increased operating costs in the absence of QF**
17 **curtailments necessarily constitute the kind of "operational**
18 **circumstances" covered by Section 292.304(f) and Rule 25-17.086.**
19 **Again, I don't have to look any further to find support for this**
20 **conclusion than the very same documents that Mr. Shanker relies on.**

21
22 **Q. What do Mr. Shanker's exhibits really show?**

23 **A. In FERC's proposal to establish a curtailment rule, it said that the state**
24 **regulatory agencies would be responsible for determining when the net**
25 **increased operating cost problem arises for a particular utility, and it**

1 cited the low load problem as an "example" of this condition. (Shanker
2 Exhibit 11 (RJS-4) at page 8 of 16). Later, in response to comments
3 fearful of potential abuses of the increased operating cost test, the
4 FERC included the "operational circumstances" criterion in Section
5 292.304(f). (Shanker Exhibit 11 (RJS-6) at pages 14-15 of 24). But
6 again, FERC used the minimum load condition as a specific illustration
7 of the problem the rule was designed to address. Having twice said
8 that a minimum load condition is, in fact, an "operational circumstance,"
9 it hardly seems that a utility should have to establish this fact yet again.
10 This is especially true since this Commission also used the minimum
11 load example when it established Rule 25-17.086. In Order No. 12634,
12 Docket No. 820406-EU, page ~~25~~²³ (Oct. 27, 1983), this Commission
13 said:

14 We have retained the provisions of the original rule
15 excusing a utility from its obligation to purchase under
16 certain circumstances, and have added to it to make clear
17 that a utility is not required to purchase from a QF when
18 to do so would result in costs greater than those which
19 the utility would incur if it did not make such purchases.
20 We believe this is most likely to happen during a utility's
21 off-peak periods where it may be cycling its base load
22 units and QF purchases would force it to shut down the
23 units altogether.

24
25 If Florida Power was asserting that some other system condition
26 warranted curtailments, then it might be necessary to consider whether
27 that condition met the "operational circumstances" test. However, the
28 "operational circumstances" issue is a red herring in the present case.

1 I would like to make a further point on the subject of "operational
2 circumstances" -- that is, that I find Mr. Shanker's approach to this
3 issue to be hopelessly circular. The witness begins with the proposition
4 that a utility must first establish "operational circumstances" and then
5 "negative avoided costs" as separate pre-conditions for the right to
6 curtail. However, at page 20 of his testimony, he tries to make the
7 second showing a prerequisite for the first showing. Specifically, he
8 claims that:

9 one of the factors relevant to determining the existence of
10 "operational circumstances" must be an increase in costs
11 due to the purchase of QF power during low load periods
12 versus the level of costs the utility would incur in the
13 absence of QF power purchases during such periods.

14 This makes no sense and is misleading. Whether or not a particular
15 system condition is an "operational circumstance" is one question that
16 needs to be answered under the curtailment rule. Whether or not that
17 "operational circumstance" will result in "negative avoided cost" is a
18 distinct question under the rule and is analytically unconnected to the
19 first question.

20
21 Q. According to Mr. Shanker, the fact that FERC's Section 292.304(f)
22 refers to increased power production costs as a result of QF purchases,
23 but excludes a previously proposed reference to increased purchased
24 power costs, means that a utility's firm power purchases (such as
25 Florida Power's purchases from the Southern Companies) have to be
26 ignored in determining whether there are "operational circumstances"

1 which justify a curtailment. (Shanker, pages 34-35). Does this make
2 sense to you?

3 A. No. Mr. Shanker is mixing apples and oranges to reach a desired result.
4 The reference in Section 292.304(f) to the utility's alternative cost of
5 generation applies when comparing the costs of continuing a QF
6 purchase versus curtailing it (*i.e.*, the second test in Section
7 292.304(f)). This reference is not a part of, and is not used to define,
8 the separate requirement that a curtailment must result from
9 "operational circumstances" (*i.e.*, the first test in Section 292.304(f)).
10 As I said earlier, Mr. Shanker's analysis is circular and misleading. He
11 uses the "operational circumstances" test as a basis for assuming away
12 the negative avoided cost issue; and then he uses the negative avoided
13 cost test to define away the possibility of an "operational
14 circumstance." These are two distinct rather than intertwined tests for
15 curtailment.

16
17 Q. Can you suggest why the FERC would have focused on the alternative
18 cost of utility generation, and not power purchases, when it was
19 prescribing the negative avoided cost criterion for QF curtailments?

20 A. The FERC rule obviously was designed to fit the minimum load situation.
21 In this situation, FERC evidently recognized that the solution to the
22 problem would require a trade-off between QF generation and utility
23 generation based on their relative costs. The FERC never said that firm
24 (unavoidable) power purchases could not be considered as part of a
25 utility's fixed minimum generation level. However, where the system,

1 after having reached that minimum generation, is still in an excess
2 condition, the addition of short-term discretionary energy purchases at
3 that point would exacerbate, not improve, the condition. Therefore, it
4 is not surprising that FERC would exclude such discretionary purchases
5 from the comparison of utility costs with and without the QF purchases.
6

7 **Q. If you have so many disagreements with the OCL/Pasco analytic**
8 **framework, under what other framework do you believe that the**
9 **Commission should examine Florida Power's proposed curtailment**
10 **practices?**

11 **A. Because we are dealing with exactly the minimum load condition**
12 **envisioned by FERC and this Commission, I believe that "operational**
13 **circumstances" ought to be a non-issue in this case. I further believe**
14 **that the Commission should focus its attention on whether the failure**
15 **to curtail in the minimum load conditions covered by the Plan would**
16 **inappropriately shift system costs to the Company's native load**
17 **customers. This kind of subsidy to the QFs is unwarranted and**
18 **inconsistent with PURPA. If native load customers are adversely**
19 **affected through higher net costs to generate electricity than they would**
20 **incur without the QF purchases, then curtailments should be authorized.**
21 **Florida Power's evidence amply demonstrates that curtailments are**
22 **warranted in the circumstances described in the Curtailment Plan.**
23 **Having reached that conclusion, the Commission can then determine**
24 **whether the Curtailment Plan provides for reasonable notice and**

1 curtailment priorities. There is scarcely any dispute before the
2 Commission on this final question.

3
4 **Q. Do you have any doubt as to whether Florida Power could also justify
5 its Curtailment Plan under the framework put forth by OCL/Pasco?**

6 **A. No.** Although I strongly disagree with the OCL/Pasco analytic
7 framework, the evidence clearly establishes that the Commission can
8 and should approve the Curtailment Plan even under their flawed set of
9 criteria. Despite OCL/Pasco's assertions to the contrary, the minimum
10 load problem which Florida Power is trying to address is, in fact,
11 grounded in operational circumstances on the system which result in the
12 course of prudent planning and operation. The ongoing need to match
13 generation and load is a critical reliability concern as well as a material
14 economic concern. The minimum load problem is occurring today
15 despite reasonable planning which this Commission has repeatedly
16 endorsed, and the problem is, in fact, an intermittent one which the
17 Company eventually expects to grow out of. Florida Power's failure to
18 curtail as contemplated by the Plan would result in the uneconomic use
19 of the Company's baseload resources and would, without question,
20 yield negative avoided costs of some magnitude (in addition to
21 threatening reliability). The right to curtail in these minimum load
22 conditions is expressly acknowledged by Section 6.3 and other
23 provisions of the QF contracts; additional "dispatch" rights were not
24 needed for that purpose. In addition, Florida Power has used and is
25 continuing to use extensive measures to mitigate the problem before

1 calling upon QFs to curtail. The further mitigation measures proposed
2 by OCL/Pasco would cause the Company's ratepayers to incur one
3 added cost burden in order to shift the risk of another cost burden. To
4 date, the Company's mitigation efforts have been very successful in
5 terms of minimizing the number and size of curtailment events. The
6 Plan thus passes muster even under the novel standards set up by
7 OCL/Pasco.

8
9 **B. Florida Power's Planning Has Been Reasonable**

10
11 **Q. Your direct testimony explained that Florida Power will be buying more
12 than 1,100 MW of QF power by later in 1995. Is this all firm capacity?**

13 **A. Yes. This figure is based on the committed capacity amounts in all of
14 Florida Power's QF contracts. It should be noted, however, that more
15 than 100 MW of additional power is routinely supplied to the Company
16 on an as-available basis. Normally, the Company has little, if any,
17 control over the amounts of as-available energy which the QFs choose
18 to deliver to the Company and the amounts which will be delivered at
19 any particular time are difficult to predict.**

20
21 **Q. How much of the QF committed capacity was contracted for at one
22 time?**

23 **A. In early 1991, the Company signed eight contracts for approximately
24 559 MW, or more than half of the total committed capacity. All of this
25 capacity was offered to the Company in response to a Request for**

1 Proposals ("RFP") issued on January 11, 1991. The RFP anticipated a
2 capacity need on the order of 450 MW in the 1991-1993 time frame,
3 and the Company received 13 bids totalling 1,026 MW of potential
4 capacity purchases. At about the same time, contracts were signed
5 with Seminole Fertilizer and EcoPeat for an additional 51.5 MW, which
6 have ultimately accounted for approximately 55 MW.

7

8 **Q. What was the basis for the Company's projection that it would need**
9 **about 450 MW of new generating capacity?**

10 **A. The best information available to Florida Power at the time was the**
11 **1990 Generation Expansion Plan. That plan was finalized and submitted**
12 **to this Commission on October 30, 1990. It was the most current**
13 **comprehensive forecast when the contracts were developed in 1990**
14 **and during the RFP process in early 1991.**

15

16 **Q. What were the Company's peak load projections in the October 1990**
17 **Generation Expansion Plan for the 1992-1993 through 1994-1995**
18 **winter periods?**

19 **A. The Generation Expansion Plan showed forecasted peak loads of 7,094**
20 **MW during the winter of 1992-1993; 7,319 MW during the winter of**
21 **1993-1994; and 7,567 MW during the winter of 1994-1995.**

22

23 **Q. How did Florida Power's Expansion Plan forecasts compare to those of**
24 **other utilities in Florida?**

1 **A.** Florida Power's forecasts reflected a demand growth rate of
2 approximately 4.0 percent, which was similar to that used by the other
3 utilities in Florida.

4
5 **Q.** Did the October 1990 Generation Expansion Plan support the
6 Company's projected need for 450 MW of additional capacity?

7 **A.** Yes. When the eight RFP contracts were approved in Order No. 24734,
8 Docket No. 910401-EQ (July 1, 1991), the Commission found (at page
9 9) that:

10 FPC's need is immediate and they cannot risk obtaining
11 less than 450 MW because of possible QF defaults or
12 delays. Also, FPC's need is probably greater than the 450
13 MW they identified in their 1990 plan because that plan
14 did not anticipate recently requested delays in existing QF
15 projects, or the anticipated one-year delay in FPC's 500
16 kV transmission line . . . Furthermore, FPC needs to
17 purchase capacity and energy from the QFs to meet
18 reliability and reserve margin requirements.

19
20 The 500 kV transmission line has since been delayed indefinitely and the
21 Company has deferred some of its own generation construction plans.

22
23 **Q.** How has the Company's forecasted load growth changed since the
24 1991 RFP contracts were signed?

25 **A.** The forecast in Florida Power's Ten-Year Site Plan as of December 31,
26 1994 (as filed with the Commission on March 31, 1995) reflects
27 forecasted winter peaks that range from 144 to 342 MW lower than
28 had been forecast in the October 1990 Generation Expansion Plan.

29
30 **Q.** Are the lower forecasts supported by actual experience?

1 **A.** Yes. The actual peak demand during the 1992-1993 winter period was
2 6,219 MW -- or 875 MW less than the October 1990 forecast. During
3 the winter of 1994-1995, Florida Power experienced numerous record
4 system peaks. Still, the largest system peak was 6,955 MW, which is
5 364 MW less than the forecasted value.

6
7 **Q.** Obviously, Florida Power's peak load has not increased as quickly as
8 forecasted. Has the Company's minimum load increased at the same
9 rate as the peak load?

10 **A.** No. When the RFP contracts were developed and executed, it was
11 assumed that the minimum load would increase at about the same rate
12 as the peak load. This would have been consistent with the actual
13 experience over the four or five years immediately before the RFP
14 contracts, when minimum loads grew at an annual rate of about 5.0
15 percent. In fact, however, since the contracts were signed, the
16 minimum load has increased at only about half of the historic growth
17 rate.

18
19 **Q.** At what rate does the Company currently forecast the minimum load to
20 increase?

21 **A.** Florida Power currently forecasts the minimum load to increase at 1.5
22 to 2.0 percent per year. As a comparison, the peak load is currently
23 forecasted to increase at 3.0 percent per year.

1 Q. You stated that, as a result of the 1991 RFP, the Company signed eight
2 contracts totalling 559 MW. If the Company was projecting a need for
3 450 MW of capacity, then why did it enter into contracts to buy 559
4 MW?

5 A. Florida Power was planning to meet its anticipated capacity needs in a
6 responsible manner. The extra capacity was signed up to avoid
7 capacity shortfalls that could have occurred in the event of reasonably
8 expected QF non-completion contingencies. Throughout the contracting
9 and early development stages, Florida Power believed that as much as
10 25 percent of the contracted QF capacity would not be built because of
11 development failures of one kind or another. This contingency
12 assumption was disclosed repeatedly to the Commission, as for example
13 in Docket No. 910401-EQ, mentioned above, and in Florida Power's
14 certificate of need proceeding to build new generating plants in Polk
15 County (Docket No. 910759-E). It was considered reasonable by the
16 Commission when the eight RFP contracts were approved and again in
17 the Polk County need case.

18
19 Q. How was the 25 percent attrition contingency explained to the
20 Commission?

21 A. In the August 1991 Integrated Resource Study supporting Florida
22 Power's Polk County proposal, the Company explained this contingency
23 assumption (at page 103) as follows:

24 If a source of purchased capacity is still in the
25 developmental stages, there is always uncertainty as to
26 whether it will become operational as planned. For
27 example, Seminole Fertilizer exercised their contract

1 option to lower capacity from 47 MW to 15 MW. This
2 reduction occurred at a date too late to be captured in this
3 Study, which assumed 47 MW for the Seminole Fertilizer
4 contract. Florida Power is also aware that many proposed
5 QF projects are abandoned during the developmental
6 process.

7
8 FPC has elected to account for the uncertainty associated
9 with QF projects by contracting for more capacity than it
10 presently believes is needed. It is difficult to know how
11 much additional QF capacity should be placed under
12 contract, as information and experience with QFs is
13 limited. FPC has elected to contract for approximately
14 25% more capacity than reliability studies indicates is
15 required. This percentage was recently reviewed by the
16 Commission when it approved the contracts comprising
17 Group III. Virginia Power recently has also used this
18 percentage in making QF acquisition decisions.

19 The Commission adopted the Presiding Officer's Recommended Order
20 in that case which found (at page 39) that "Florida Power has
21 demonstrated that it reasonably considered capacity purchases from
22 other utilities and non-utility generators to meet future generation
23 needs." As I noted earlier, the Commission similarly accepted the
24 Company's attrition assumptions when it approved the RFP contracts.

25
26 **Q. Has there been as much non-completion attrition as the Company**
27 **anticipated?**

28 **A. No.** As it turned out, some of the original project developers failed, but
29 the contracts were preserved. The development of an active secondary
30 market for contracts allowed failing developers to sell their contracts so
31 that another developer could then complete the project. As a result,
32 there is more QF energy being supplied today than Florida Power
33 reasonably expected to have available. Nevertheless, throughout the
34 planning and development stages of these QF supplies, Florida Power's

1 contingency assumptions were disclosed to the Commission and were
2 deemed reasonable for planning purposes. Any attempt at this late date
3 to begin second-guessing the validity of those planning assumptions,
4 would be a highly unreasonable exercise in Monday-morning
5 quarterbacking.

6
7 **Q. How does the additional QF capacity which Florida Power was not**
8 **banking on affect the minimum load problem on Florida Power's**
9 **system?**

10 **A. Under most load conditions this additional capacity provides for added**
11 **reliability to the Company's ratepayers. The Commission recognizes**
12 **that a reserve margin of at least 15 percent is prudent. (See Order No.**
13 **940345-EU, Docket No. 94-1256-FOF-EU (Oct. 11, 1994) at page 7).**
14 **The Commission specifically found that Florida Power's purchase of 559**
15 **MW under the eight RFP contracts would assist the Company in**
16 **meeting its reserve obligations as well as a 0.1 days per year loss of**
17 **load probability criterion. (See Order No. 24734, Docket No. 940401-**
18 **EQ (July 1, 1991) at page 9).**

19
20 The capacity was purchased on a long-term basis to contribute to the
21 system's peak load generating requirements. Of course, during
22 minimum load conditions, any additional energy contributes to the
23 problem of over-generation. In fact, the contribution is greater and more
24 frequent than Florida Power reasonably anticipated in the 1990-1991
25 time frame, because as I have said, we were expecting minimum loads

1 to increase at roughly the same rate as peak loads. Because the growth
2 in minimum load has lagged behind expectations, the problem of over-
3 generation is being felt more than expected. Again, if we had the
4 benefit of 20-20 hindsight, we might not have signed up as much QF
5 capacity. This does not mean that the decision was unreasonable when
6 made or when endorsed by the Commission.

7
8 **Q. Are there any other aspects of the QF projects that did not turn out as**
9 **had been assumed and therefore are contributing to the minimum load**
10 **problem?**

11 **A. Yes. In addition to and sometimes because of the buying and selling of**
12 **these projects, the fuel type and size of these projects have changed.**
13 **The changes in fuel type resulted in less fuel diversity than Florida**
14 **Power anticipated. This relative lack of fuel diversity (i.e., an**
15 **unexpectedly high dependence on natural gas) means that when the**
16 **QFs are receiving as-available payments, they may be less likely to**
17 **choose to curtail their deliveries because they previously chose to buy**
18 **their gas supplies and transportation under take-or-pay contracts.**

19
20 **Additionally, many of these projects were built much larger than**
21 **required by their contracts. Florida Power has been able to negotiate**
22 **with many of these QFs so that they will reduce their deliveries during**
23 **off-peak hours. But, there are some QFs that are delivering energy in**
24 **excess of their committed capacities during low load periods.**

1 **C. The QF Contracts Addressed Minimum Load Contingencies**
2 **Without Including Dispatch Rights**

3
4 **Q. In early 1991, when the Company signed the RFP contracts, did it plan**
5 **ahead for potential curtailments?**

6 **A. Yes. To repeat, Florida Power was buying capacity to satisfy**
7 **reasonably projected peak generating needs. Nevertheless, it was**
8 **certainly possible that circumstances could develop where QF purchases**
9 **would have to be curtailed because of system conditions. The**
10 **possibility of requiring curtailments was therefore specifically addressed**
11 **in the RFP contracts by reference to Rule 25-17.086. Also, Section**
12 **6.3 of these contracts states:**

13 **6.3 If the Company is unable to receive part or all of the**
14 **Committed Capacity which the QF has made available for**
15 **sale to the Company at the Point of Delivery by reasons**
16 **of (i) a Force Majeure Event; or (ii) pursuant to FPSC Rule**
17 **25-17.086, notice and procedural requirements of Article**
18 **XXI shall apply and the Company will nevertheless be**
19 **obligated to make capacity payments which the QF would**
20 **be otherwise qualified to receive, and to pay for energy**
21 **actually received, if any. The Company shall not be**
22 **obligated to pay for energy which the QF would have**
23 **delivered but for such occurrences and QF shall be entitled**
24 **to sell or otherwise dispose of such energy; in any lawful**
25 **manner; provided, however, such entitlement to sell shall**
26 **not be construed to require the Company to transmit such**
27 **energy to another entity.**

28 **As an accommodation to the QFs, this section provided for the**
29 **continuation of capacity payments during a curtailment. This**
30 **preservation of capacity payments was viewed as a way to help the**
31 **project developers obtain financing because project financing often can**
32 **be supported by the fixed revenue stream available through capacity**
33 **payments. However, the contracts made clear that Florida Power would**

1 not have to pay for curtailed energy amounts, and that Florida Power
2 would have no obligation to deliver any such energy amounts (directly,
3 or indirectly by making off-system sales of curtailed energy amounts) to
4 any other party.

5
6 **Q. Did the Company consider requiring these contracts to be dispatchable?**

7 **A. The Company did look at the question of dispatchability, although the**
8 **concern related more to the economic dispatch of QFs during normal**
9 **system conditions as opposed to the more narrow need to curtail**
10 **purchases during extreme minimum load conditions. In other words, we**
11 **considered in particular whether economies could be achieved by**
12 **dispatching QFs continuously on a minute-to-minute basis, as we do**
13 **with all of the Company's own units, within the normal range of our**
14 **load curve to improve overall energy costs. Ultimately, the Company**
15 **concluded that only minimal benefits, if any, would have been realized**
16 **by having this type of dispatch rights, so we never demanded those**
17 **rights during the RFP or contract process.**

18
19 **Additionally, at the time, it was believed that the performance**
20 **adjustment built into the contract's pricing mechanism would**
21 **approximate the effects of economic dispatch -- by providing an**
22 **incentive for the QFs to be on-line when they were most needed and**
23 **off-line when they were least needed. It was anticipated that economic**
24 **incentives for not generating during low load conditions would help to**
25 **address these concerns. In practice, this has not been the case because**

1 QFs' take-or-pay gas transportation and supply contracts have distorted
2 the way in which the projects otherwise would have responded to the
3 performance adjustment on an hour-to-hour basis.

4
5 Furthermore, it was always clear that QF deliveries could be interrupted
6 if necessary under the criteria of Rule 25-17.086, and the RFP contracts
7 left no doubt as to this right in several provisions, including Section 6.3.
8 Given the applicability of Rule 25-17.086 to the minimum load
9 condition, at the time the contracts were entered into there was simply
10 no need to negotiate additional rights in order to address the minimum
11 load contingency. Dispatch, as I have explained, normally serves a
12 different function.

13
14 **Q. Do you agree with Mr. Shanker's characterization of the RFP Contracts**
15 **as being "must-run" contracts?**

16 **A. No, not in the minimum load conditions described in the Curtailment**
17 **Plan. Under those conditions, curtailments are allowed by the contracts**
18 **and by the PURPA rules.**

19
20 **Q. Is there any merit to Mr. Shanker's contention that Florida Power is**
21 **paying less to QFs than it would have paid if it had negotiated additional**
22 **dispatch rights?**

23 **A. No. Florida Power's pricing was based in a straightforward way on the**
24 **value of deferral of a new generating unit. The Company never**
25 **separately offered more money in exchange for dispatch rights, nor did**

1 it get any price discount because of an absence of dispatch rights. The
2 truth is that the issues of dispatchability and contract pricing were never
3 directly linked.
4

5 What the Company did pay for (and acquire) was a clear understanding
6 in Section 6.3 that curtailments might be required, that energy
7 payments would be withheld in that event, and that Florida Power
8 would not be required to deliver the curtailed QF energy amounts to
9 third parties. Clearly, if the Company were to have curtailed generation
10 from its own unit, it would have avoided these energy costs in an
11 equivalent manner. There was no need to offer greater compensation
12 to secure dispatch rights to accomplish this very same purpose.
13

14 Furthermore, I could only speculate as to whether dispatch rights would
15 have had any real impact on the minimum load problem in any event.
16 The frequency, timing and depth of dispatch rights can vary
17 substantially from one contract to another and it is unlikely that any QF
18 would have even considered deep enough dispatch provisions to
19 substitute for curtailment.
20

21 **Q. Florida Power has successfully negotiated voluntary output reduction**
22 **commitments with many of the QFs. Were all of the QFs given the**
23 **same opportunity to negotiate such written commitments with Florida**
24 **Power?**

25 **A. Yes.**

1 **Q. Does this conclude your rebuttal, Mr. Dolan?**

2 **A. Yes.**

1 Q (By Mr. Fara) Do you have a summary of your
2 testimony, Mr. Dolan?

3 A Yeah, I have a very short summary.

4 My rebuttal testimony demonstrates that Mr. Shanker
5 has read into PURPA convoluted and complicated logic that
6 simply doesn't exist since the FERC rules and the FPSC rules,
7 including implementation orders, are simple and direct.

8 FERC's proposed rule and the rule that got
9 implemented states that "any period," and it emphasizes the
10 word "any period." It didn't create some longer period; that
11 due to operational circumstances the purchases from QFs will
12 result in costs greater than those which the utility would
13 have incurred.

14 The failure -- and another point in a lot of the
15 testimony to date, the failure to have insisted on QF
16 dispatchability was not needed to deal with current minimum
17 load problem because the contracts retained and expressly
18 acknowledged the right to curtail in these minimum load
19 conditions, and I believe these conditions were explicitly
20 spelled out in your order that I just corrected the page. And
21 I'll just read the very end of that implementation Order
22 No. 69. "We believe this is most likely to happen during the
23 utility's off-peak periods where it may be cycling its
24 baseload units and QF purchases would force it to shut down
25 the units altogether."

1 Another point that has been brought out is that our
2 current minimum load problem is a result of poor planning. I
3 think the current minimum load problem is being experienced
4 today by Florida Power in spite of good planning.

5 And another issue that has been brought up is firm
6 purchases from other utilities. FERC has never said that a
7 firm take-or-pay, or the must-take portion, cannot be
8 considered as part of a utility's fixed minimum generation
9 level.

10 Another point is that Shanker and Mr. Slater have
11 said that we ought to be selling the power at some above zero
12 cost. There's another FPSC rule that's in the firm capacity
13 and energy part of the rules that states that such sales are
14 encouraged, not required; and that they should only be made at
15 prices which are cost-effective to the ratepayers. This is in
16 Rule 25-17.0832(6).

17 And that is all of my summary.

18 CHAIRMAN CLARK: Do you want his testimony inserted
19 in the record?

20 MR. FAMA: Yes, Commissioner.

21 CHAIRMAN CLARK: The direct testimony of -- rebuttal
22 testimony of Mr. Robert Dolan will be inserted in the record
23 as though read.

24 MR. FAMA: Thank you.

25 (For convenience of the record Mr. Dolan's prefiled

1 rebuttal testimony was inserted in the record at Page 827.)

2 CHAIRMAN CLARK: Ms. Walker.

3 MS. WALKER: No questions.

4 CHAIRMAN CLARK: Mr. McGlothlin.

5 CROSS EXAMINATION

6 BY MR. MCGLOTHLIN:

7 Q Mr. Dolan, very quickly, I just have a question
8 about a reference you made to a portion of Order No. 69 at
9 Page 9 of your rebuttal testimony.

10 Take the example of a QF who calls the utility and
11 says, "We have no existing relationship, but I've got a
12 project and I'd like to sell you some capacity." And the
13 utility says, "We have an abundance of capacity, more than we
14 need. We don't have to buy yours." And the QF says "Oh,
15 okay". In that example, has the utility curtailed the QF
16 under 292.304 and the FPC rule implementing that standard?

17 A I don't think I quite understood your question.
18 Could you repeat it?

19 Q Okay.

20 A It's a pretty long question.

21 Q Well, the example is there is no existing
22 relationship between the QF and the utility. The QF offers to
23 sell capacity and to enter into a contract. The utility says,
24 "I have more capacity than I need. I don't want your capacity
25 and I don't have to buy it. We can't enter into a contract."

1 In that example, has the utility curtailed the QF under
2 292.304 and the PSC rule implementing that standard?

3 A The question is that somebody wanted to -- did not
4 have a contract?

5 Q Right.

6 A And wanted to enter into a contract?

7 COMMISSIONER GARCIA: Could you state the question
8 again? I didn't hear it.

9 MR. MCGLOTHLIN: Yes.

10 Q (By Mr. McGlothlin) The example is the QF and the
11 utility have no existing relationship, no contracts, no sales.
12 The QF approaches the utility and offers to sell capacity.
13 The utility says, "I have abundance of capacity. I don't need
14 yours. I'm not going to buy it and don't have to." In that
15 situation, has the utility curtailed the QF under 292.304?

16 A Well, the utility doesn't have to purchase the
17 capacity under firm conditions, under that, and I think that's
18 covered in other parts of the order. I think 304(f) and
19 25-17.086 deals with the minimum load problem, not avoided
20 cost problem under your scenario where a utility did not need
21 the capacity.

22 Q Is the answer no, it's not a curtailment under that
23 reg?

24 A I thought I answered no, that it's not and I went
25 further.

1 MR. MCGLOTHLIN: That's all.

2 CHAIRMAN CLARK: Mr. Watson?

3 MR. WATSON: No questions.

4 MS. RULE: No questions.

5 CHAIRMAN CLARK: Mr. Wright?

6 MR. WRIGHT: I have no questions. Thank you,

7 Chairman Clark.

8 MS. BROWN: No questions.

9 CHAIRMAN CLARK: Commissioners? Redirect?

10 MR. FAMA: None.

11 CHAIRMAN CLARK: Thank you, Mr. Dolan.

12 (Witness Dolan excused.)

13 - - - - -

14 CHAIRMAN CLARK: Mr. Lefton.

15 Go ahead, Mr. Tenpas.

16 - - - - -

17 STEVEN A. LEFTON.

18 was called as a rebuttal witness on behalf of Florida Power
19 Corporation and, having been duly sworn, testified as follows:

20 DIRECT EXAMINATION

21 BY MR. TENPAS:

22 Q Mr. Lefton, did you sponsor prefiled rebuttal
23 testimony?

24 A Yes, I did.

25 Q Are there any corrections to your prefiled rebuttal

1 testimony that you need to make?

2 A No, there's not.

3 Q If I were to ask you today the questions that appear
4 in your rebuttal testimony, would you give us the same answer?

5 A Yes, I would.

6 MR. TENPAS: I move to have the prefiled rebuttal
7 testimony of Mr. Lefton inserted into the record as though
8 read.

9 CHAIRMAN CLARK: It will be inserted into the record
10 as though read.

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1 without QF purchases. I will also rebut Mr. Slater's contention that
2 these costs have not been properly estimated.

3
4 **II. REBUTTAL TO OCL/PASCO'S TESTIMONY**

5
6 **Q. Mr. Slater states that including "unit impact" costs in a comparison of
7 production costs that would be incurred with and without QF generation
8 penalizes the QF purchase scenario. (Slater, page 14). Do you agree?**

9 **A. I strongly disagree with Mr. Slater's choice of the loaded word "penalty"
10 to suggest that a correct comparison of costs is somehow inappropriate
11 or punitive. There is no "penalty" involved in my assessment of unit
12 impact costs of cycling or in Florida Power's use of those cost estimates
13 in its evaluation of negative avoided costs during minimum load
14 conditions.**

15
16 Mr. Slater concedes that "[i]n calculating utility avoided costs, it is
17 wholly appropriate to capture all recognizable costs associated with the
18 utility meeting the demands of its customers." (Slater, page 17). This
19 is exactly what we are doing when we capture the incremental unit-
20 related costs of cycling a baseload unit under minimum load conditions.

21
22 **Q. Is it fair to say, as Mr. Slater does at page 15 of his testimony, that the
23 unit impact costs which you have measured are simply the results of
24 planning choices made years ago by Florida Power?**

1 A. No, that is not a valid observation. The unit impacts which I have
2 evaluated are current costs tied specifically to current instances of unit
3 cycling. Each time that a unit is forced to cycle when it would not
4 otherwise have been cycled, incremental costs would be incurred in the
5 range of magnitude I have testified to. Of course, current costs are
6 related to the way in which units were operated in the past. But this
7 does not alter the fact that the costs I have identified will be incurred
8 today during each cycling event.

9
10 If a QF purchase during a minimum load condition forces a cycling event
11 that would not otherwise have occurred, then the attendant costs
12 should be attributed to the cause of that cycling event -- *i.e.*, the QF
13 purchase. Whatever decisions were made in the past regarding the
14 intended operation of Florida Power's units, the present QF purchases
15 are contributing directly to the present cycling costs. Therefore, any
16 valid comparison of system production costs with and without QF
17 purchases should take these costs into account.

18
19 Q. Mr. Slater describes a situation where "a unit which has not been
20 designed for cycling duty is called upon to perform cycling on a regular
21 basis . . ." (Slater, pages 16-17). To your knowledge, does this
22 accurately portray Florida Power's situation?

23 A. No. Mr. Slater is correct when he observes that regularly cycling a unit
24 that was not designed for cycling duty would result in added
25 maintenance and capital costs. But I am concerned that Mr. Slater has

1 mischaracterized the facts as they apply to Florida Power. First, I would
2 note that Florida Power's baseload units, as is typical in the industry,
3 were designed to perform some transient cycling duty in order to
4 economically follow load fluctuations. Second, we are not dealing with
5 a radical change in operating practices whereby Florida Power would
6 have to begin cycling off its baseload units "on a regular basis" to
7 handle the minimum load problem, because that problem is expected to
8 be intermittent and to diminish over time. The important point to draw
9 from the APTECH analysis is that, even without such a dramatic change
10 in operating practice, any additional instances of on/off cycling will
11 cause Florida Power to incur the unit impact costs which we have
12 identified. This is because we have examined the incremental costs of
13 each added on/off cycling event.

14
15 **Q. Mr. Slater states that the unit impact costs, as calculated by APTECH,**
16 **should be factored into an avoided capacity cost calculation, but not an**
17 **avoided energy cost calculation. (Slater, page 19). Do you agree with**
18 **this evaluation?**

19 **A. No. Mr. Slater draws this conclusion only because he mischaracterizes**
20 **APTECH's quantification of the cost of cycling baseload generating**
21 **units.**

22
23 Mr. Slater incorrectly states that APTECH's "largest single category of
24 these [unit impact] costs relate to plant capital expenditures and plant
25 lives." In fact, APTECH concluded that the largest single category of

1 cycling costs for Florida Power was plant maintenance of which over
2 90% is attributable to "Variable O&M" dollars. Less than 10% of these
3 maintenance costs are classified as capital expenditures. The plant life
4 shortening impact was another separate category in the APTECH
5 analysis and was much smaller. By leaving out the word maintenance,
6 Mr. Slater has completely mischaracterized these costs. These
7 maintenance costs are energy-related variable costs and are properly
8 considered in the avoided energy cost comparison.

9
10 The "capital expenditures" referred to in the APTECH analyses include
11 Replacement Units of Property, which are discrete items of property
12 replaced in power plants. They are treated in capital accounts, rather
13 than being expensed, because of regulatory accounting principles which
14 require a consistent treatment of replacement items of property between
15 all utilities. The "capital expenditures" also include costs to improve
16 performance of the units when they cycle, but do not include costs
17 associated with capacity additions which would be included in a
18 capacity charge.

19
20 Since the largest cost component of APTECH's unit impact costs
21 consists of incremental maintenance and a much smaller capital expense
22 that really should be called maintenance, and since the maintenance
23 predominantly is variable or energy-related, Mr. Slater's statement that
24 "[s]uch costs are included in capacity costs, not avoided energy costs"
25 is not correct.

1 **Q. Mr. Slater further contends that APTECH's unit impact costs of cycling**
2 **include "costs of ongoing analyses, studies and computer software"**
3 **which are fixed costs and therefore belong in an avoided capacity cost**
4 **calculation as opposed to an avoided energy cost calculation. (Slater,**
5 **page 19). Are such costs included in the unit impact costs which**
6 **APTECH quantified for Florida Power?**

7 **A. No. Such costs certainly are real and should be included as additional**
8 **variable or energy-related costs when Florida Power is satisfied that they**
9 **have been accurately measured. However, this is a moot point for now.**
10 **APTECH did not include such costs in its analyses because they are very**
11 **difficult to estimate with a significant degree of confidence. Because**
12 **this cost component is not included in the APTECH estimates, this is a**
13 **good example illustrating the fact that cycling cost estimates being used**
14 **by Florida Power are conservatively low.**

15
16 **Q. Do you agree with Mr. Slater's assertion that these cycling-related costs**
17 **should not be used on a per-start basis for short-term optional decision**
18 **making (Slater, page 19)?**

19 **A. No. The APTECH analyses developed reliable estimates of cycling**
20 **impact costs that will be incurred with each additional cycling event.**
21 **In other words, these estimates are reflective of per-start costs and**
22 **therefore do provide an appropriate basis for short-term (*i.e.*, per-start)**
23 **decision making.**

1 The unit impact costs are neither "past costs" nor "future costs."
2 Instead, they reflect the current cost of an additional cycle based on
3 past known and measurable costs (e.g., start-up fuel, auxiliary power,
4 past capital costs, past maintenance costs, past efficiency losses, past
5 low load operation at higher than optimum heat rate). Only the
6 unavoidable shortening of unit life despite Florida Power's best-efforts
7 maintenance could be considered a future cost. But, even this item is
8 derived from and, therefore, representative of the damage incurred to
9 date, and this item represents only a small fraction of the total cost of
10 cycling. Thus, APTECH determined a conservative cost per start, based
11 mainly on past history of the units under review.
12

13 Q. Mr. Slater asserts that your approach is speculative and
14 methodologically unsound. (Slater, page 19). He then cites examples
15 from your Exhibit No. 6 (SAL-2) to support his claims. How do you
16 respond to these claims?
17

18 A. The examples cited by Mr. Slater refer to Figures 4 and 5 in Exhibit
19 No. 6 (SAL-2). Neither of those figures nor the data which they depict
20 were relied upon in APTECH's analysis of Florida Power's cycling costs.
21 The figures have been provided in this case strictly as background
22 information on and qualitative support for the fact that older generating
23 equipment is susceptible to high maintenance and EFOR impacts.
24

25 Mr. Slater's resume shows that his work experience has been based on
predictive modeling incorporating probability and statistics. This may

1 costs. In addition, APTECH then performed a "bottom up" analysis
2 based on an extensive review of actual plant records and Florida Power
3 cost experience for the largest cost items. This work validated the
4 results of the previous APTECH analysis and increases our confidence
5 in the overall result.

6
7 I am confident that completion of the remaining tasks in the original
8 APTECH proposal would only serve to increase the probability that our
9 existing unit cycling costs are within conservative bounds. The
10 additional tasks would not change our basic conclusions, but would only
11 serve to refine our estimates within the previously established
12 boundaries. The additional analysis would most probably raise the lower
13 bound and the best estimate. This would ultimately increase our
14 confidence that the best estimate results of the completed Phase 1 Task
15 1 through 3 are conservative.

16
17 Q. Does this conclude your rebuttal testimony, Mr. Lefton.

18 A. Yes, it does.

1 help to explain his apparent concern that the costs identified by
2 APTECH are speculative. APTECH's approach, in contrast, focuses on
3 state-of-the-art mechanical hardware modeling. APTECH applies
4 established technology on creep-fatigue interaction effects, corrosion,
5 stress induced corrosion, finite element analysis and advanced
6 temperature, heat flux and strain monitoring techniques. The APTECH
7 cost estimates are based mainly on historic cost experience and known
8 equipment responses to given operating conditions.

9
10 Since the APTECH estimates are based on past history, and generating
11 units tend to be used for increasingly severe cycling duty as they age,
12 these estimates are conservative.

13
14 Q. Please address Mr. Slater's claim that the APTECH study is an
15 incomplete exercise resulting in preliminary and uncertain results and
16 that the lack of supportable results is not surprising given that Florida
17 Power funded only three out of the original eleven phases that were
18 proposed. (Slater, pages 21-22).

19 A. There is no merit to Mr. Slater's criticism. The APTECH analysis began
20 with a "top down" examination of data relating to Florida Power's unit
21 operation, cost, and equipment characteristics, as well as industry data
22 on similar units. APTECH used engineering models to determine cycling
23 costs and then a statistical modeling approach to account for
24 uncertainty, and this resulted in the statistical bounds (l.e., upper and
25 lower bounds) and expected values (l.e., best estimates) of cycling

1 Q (By Mr. Lefton) Mr. Lefton, could you please
2 summarize your prefiled rebuttal testimony?

3 A Yes, I will. In response to Mr. Slater, I have a
4 number of points I just wanted to summarize.

5 Number one, since the largest cyclic impact costs
6 are related to unit maintenance and they vary with unit
7 cycling, they are appropriate for inclusion in an avoided
8 energy calculation.

9 Item two, unit cycling impact costs are current
10 costs and calculated based on current instances of unit
11 cycling. Therefore, each time a unit is forced to cycle,
12 incremental cost in the range that I have testified will be
13 incurred. These costs are real costs and representative of
14 the unit in its current state of designed, whether it was
15 designed to be a cycling unit or it was not designed to be a
16 cycling unit.

17 The third item is the cost of cycling as calculated
18 by Aptech does not include, quote, "Cost of ongoing analysis
19 studies and computer software." I think the inference there
20 was made to dispatch software. Even though these are
21 verifiable and real costs, we have not estimated nor included
22 them in our calculations to date. This, again, shows the
23 conservative nature of our analysis and its conservatively low
24 figures.

25 Item four, the cost analysis methodology is very

1 sound and nonspeculative. However, it does place wide bands
2 on cycling costs in order to be very conservative. It is
3 based on an analysis of FPC's own data and the analysis of
4 hundreds of similar designed utility power plants that all
5 show similar responses to cycling as shown in my exhibit
6 SAL-4. It's got 266 units that are similar to Crystal River
7 2.

8 The last item. I am confident that additional work
9 would only serve to further confirm that our existing cycling
10 impact costs are within conservative bounds.

11 Further, the additional work would have the probable
12 effect of raising the lower bound and the best estimates even
13 higher.

14 That's all I have.

15 CHAIRMAN CLARK: Thank you.

16 MR. TENPAS: I tender the witness for cross
17 examination.

18 CHAIRMAN CLARK: Ms. Walker.

19 MS. WALKER: No questions.

20 CHAIRMAN CLARK: Mr. McGlothlin.

21 MR. MCGLOTHLIN: No questions.

22 CHAIRMAN CLARK: Mr. Watson.

23 MR. WATSON: (Indicating no.)

24 CHAIRMAN CLARK: Ms. Rule.

25 MS. RULE: (Indicating no.)

1 CHAIRMAN CLARK: Mr. Wright.

2 MR. WRIGHT: Just a couple, Madam Chairman.

3 CROSS EXAMINATION

4 BY MR. WRIGHT:

5 Q Mr. Lefton, you talk in your testimony about cycling
6 costs being energy related variable costs; is that correct?

7 A That's correct.

8 Q Have you ever performed an electric utility cost of
9 service study?

10 A We certainly have looked at cost assessment of
11 cycling for other utilities, but as you characterize it, no.

12 Q Do you know what I'm talking about? Does the phrase
13 "electric utility cost of service study," mean anything to
14 you?

15 A It does, but --

16 Q What does it mean to you?

17 A Cost of electric service.

18 Q I will propose to you the following definition: An
19 electric utility cost of service study is an analysis of the
20 utility's cost that purports to and does, in fact, allocate
21 the cost of service -- well, first identify the cost of
22 service by functional areas and then to allocate them to
23 customer classes according to various usage characteristics of
24 those classes. Are you okay with that?

25 A I'll accept that.

1 Q Okay. So would it be correct that you've never done
2 such a study?

3 A That's correct.

4 Q Okay. And you've never testified as a witness with
5 respect to such a study? (Pause)

6 A That's correct.

7 Q Have you ever had occasion to review, for example,
8 at any industry documents on such cost of service methods, for
9 example, the Electric Utility Cost Allocation Manual published
10 by the National Association of Regulatory Utility
11 Commissioners?

12 A I don't specifically recall that manual.

13 Q Are you aware that the term "energy related variable
14 cost" is a term of art in utility cost of service analyses?

15 A I am very aware of a number of definitions of that
16 and where it is defined. I've reviewed those definitions and
17 I feel that the cycling impact cost fits the definition of
18 avoided energy.

19 Q Do the cycling costs that you describe vary with
20 cycling activity of the plants or do they vary in a direct
21 linear way with kilowatt-hour output or megawatt-hour output
22 of the units of those affected?

23 A The cycling costs that I've testified vary with unit
24 cycling.

25 Q Thank you. Are you aware of how Florida Power

1 Corporation treats the maintenance costs that you describe in
2 establishing its payments to qualifying facilities?

3 A I haven't reviewed that one specifically.

4 Q Are you aware that Florida Power Corporation's
5 capacity payments to qualifying facilities generally consist
6 of an voided capital cost component and a fixed O&M component,
7 as well as energy and variable O&M components?

8 A Yes, I am.

9 Q Do you know where the O&M costs that you've
10 described and that you've identified show up in those
11 payments?

12 A The O&M cost -- give me the question again.

13 Q I asked you if you were aware of the different
14 components of the payments that Florida Power Corporation
15 makes to the qualifying facilities from whom it buys power?

16 A Yes, I am.

17 Q My question is: Do you know where in those payments
18 that Florida Power Corporation has established the O&M costs
19 of cycling that you describe show up. I'll get to the point.
20 Do they show up in the fixed O&M cost or do they show up in
21 the variable O&M costs?

22 A The current state of those? I do not know where
23 they put those currently.

24 MR. WRIGHT: Thank you.

25 CHAIRMAN CLARK: Staff?

1 MS. BROWN: No questions.

2 CHAIRMAN CLARK: Commissioners? Redirect?

3 MR. TENPAS: None, thank you.

4 CHAIRMAN CLARK: Thank you, Mr. Lefton.

5 (Witness Lefton excused.)

6 - - - - -

7 (Transcript continues in sequence in Volume 7.)

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